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Law Enforcement Perception of Social Media as an Influence in Mass Shootings

Jazma Mekelle Parker
Walden University

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Walden University

College of Social and Behavioral Sciences

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Jazma Parker

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Review Committee

Dr. Melanye Smith, Committee Chairperson,
Criminal Justice Faculty

Dr. Kimberley Blackmon, Committee Member,
Criminal Justice Faculty

Dr. Daniel Jones, University Reviewer,
Criminal Justice Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University
2019

Abstract

Law Enforcement Perception of Social Media as an Influence in Mass Shootings

by

Jazma M. Parker

MA, University of Phoenix, 2011

BS, University of West Georgia, 2009

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Criminal Justice

Walden University

November 2019

Abstract

Mass shootings have been a persistent issue in the United States, and the underlying factors that continue to influence this crime are not yet evident. This study explored the effects of social media as an influence on mass shootings in the United States. Its purpose was to address the role of social media in spreading opinionated ideologies. The research question addressed the role of social media in influencing the actions of perpetrators of mass shootings in the United States. The study framework was based on the social ecological model to facilitate classification of the susceptibilities of social media users to adverse ideologies; 7 experts on mass shootings were interviewed in the study. Findings revealed that social media tend to influence mass shooting in 4 capacities: as *enablers* of the conceptualization process of the crime until the final act of mass violence; as *facilitators* of the individual or personal agenda of the mass shooter; as *platforms* that harness emerging technology for knowledge building during the planning phase and create operational efficiency for the final act; and as *coordinators* of group or symphonic terrorism. Government authorities in charge of combating mass shootings perform their tasks through actionable intelligence, legislation and policy, training of police and other first responders, mechanical barriers or deterrents, and brainstorming for new techniques and strategies. They are, however, constrained by considerable odds, which often come conjointly with their methods of crime resolution and strategies. Predictive technologies, as vehicles to fight or prevent mass shootings, have limiting influences on government action, particularly relating to the First and Fourth Amendments and the culture of hate that is nurtured and sustained through social media.

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Dedication

I dedicate this dissertation to my mentor—Judge Adele P. Grubbs of the Cobb County Superior Court. I cannot thank you enough for the support and encouraging words you have given me over the years. I would also like to acknowledge my second mother—Mrs. Myrtice Stephens. I know if you were here today, you would be elated at the educational progression I have made since completing my undergraduate studies. I know you will be with me at commencement in spirit. I miss and love you, dearly. Rest in peace.

Finally, I would like to dedicate this dissertation to all survivors and first responders whose lives will be forever changed by the catastrophic events that formed the foundation of this study.

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Chapter 1: Introduction to the Study

Introduction

Mass shootings are longstanding problems that U.S. law enforcement agencies have faced since the 1950s. The literature on mass shootings has demonstrated a high prevalence of shooter events, particularly in recent years. These events have included highly publicized shootings such as those at Columbine High School; Virginia Tech; Sandy Hook Elementary; Charleston Church; Las Vegas; and Sutherland, Texas, among others. The most recent mass shooting happened in Parkland, Florida, where 17 people were killed, including students (CNN Library, 2018).

Various stipulations have been used to define and describe mass shootings. According to The Investigative Assistance for Violent Crimes Act of 2012, a *mass shooting* is any violent incident in which more than three victims are killed, not including the perpetrator. On the other hand, the Congressional Research Service (2013) described a mass shooting as a homicidal incident involving the use of firearms to murder more than four victims within one event or area. In fact, there is no standard or official definition of what constitute a mass shooting incident. This inconsistency should explain different versions of mass shooting statistics, because institutions and individuals ground their information in different definitions and databases (RAND, 2018). In 2014, a RAND (2018) report about what the Federal Bureau of Investigation (FBI) classifies as active-shooter incidents indicated a yearly increase of 16% from 2000 to 2013. Meanwhile, another report covering 2009 to 2017 described mass shooting statistics as

indicating that there had been “four times as many people shot in ... 2017 than the average of the eight years prior” (Everytown for Gun Safety Support Fund, 2018, p. 4)

Despite the aforementioned deviations in conceptualization, it cannot be denied that “mass shootings have a devastating impact on our communities—from the victims killed, to the surviving witnesses and community members, to the public at large” (Everytown for Gun Safety Support Fund, 2018). It is, therefore, an urgent necessity for concerned government authorities to achieve a clear understanding of the mechanism through which these incidents unfold to bolster the efficacy of interventions to combat such devastating violence.

Metzl and MacLeish (2015) uncovered a relationship between mass killings and the social media arts but did not explicitly explain the connection. Tierney (2014) defined social media as consisting of online platforms and applications that are characterized by the flow of information and entertainment. Social media, Tierney noted, have immense power to shape perceptions of the population. Multiple studies support Tierney’s argument that media play essential roles in dictating and swaying people’s perceptions (Follman, 2015; Keane, 2015; Lopatto, 2015). Existing studies, however, have shown that the main causes of mass shootings include gun ownership, among other factors, as documented by Jashinsky, Magnusson, Hanson, and Barnes (2017), but researchers have not gone deeper into identifying the roles played by each of the noted drivers of mass shootings.

Cognizant of the gap in literature pertaining to the possible link between social media and mass shootings, I sought to apply the interview technique in this study to gain fresh insights from the identified participants, who were selected for their expertise on the matter. Personnel from

the FBI, personnel from state and local police departments, and other professionals were requested to inform the study as interview subjects. Through the interviews and the study in general, I sought to establish the relationship between the increasing use of social media and mass shootings in the United States. Savin-Baden and Major (2013) endorsed interviewing as an interaction platform that allows for extensive data collection. Accordingly, the collected data were analyzed to ascertain the relationship between wider use of social media and the escalation of mass shooting incidents. An attempt was made to highlight the relevant roles played by social media in mass shootings. The research was further narrowed down to the roles played by social media in spreading xenophobic ideologies and the suicide contagion. The study also proposed means to realize the potential efficacy of law enforcement agencies not only in preventing violent attacks, but also in mitigating hate crimes and the suicide contagion, which are commonly believed to be facilitated by social media platforms.

Background

Mass shootings have been longstanding criminological mysteries in the United States. However, the factors and issues that tend to propagate such violent activities are still not clearly explained and understood. The existence of these gray areas renders the means of mitigating such violence highly controversial. Furthermore, with such issues unclear and being oversimplified as well as highly politicized, it is unlikely that any action can lead to practical solutions (Annas & Knoll, 2015). The CNN Library (2018) recorded the deadliest mass shooting event on the first of March 2017 in Las Vegas. The current trend shows a continual increase in cases of mass shootings.

There is also widespread belief that the media are playing an essential role in the spread of the suicide contagion (Garcia-Bernardo et al., 2015; Koslow, Ruiz, & Nemeroff, 2014; Towers, Gomez-Lievano, Khan, Mubayi, & Castillo-Chavez, 2015). Public discourse has shaped the context of mass murders around psychiatric or mental issues troubling perpetrators. This has been confirmed by mainstream media, which have fueled the construction of public belief that psychiatric disorders are the central issue in these murderous acts (Associated Press, 2015; Flores, 2018; Fox News, 2019; Melici, 2018; Silman, 2019). Although no reliable research has yet established a link between psychological turmoil and killings, the notion remains part of everyday communications (Metzl & MacLeish, 2015). With generally high public acceptance for media, coupled with their persuasive effect, media can be groomed as a critical tool for preventing planned mass murders, by minimizing moral panic and public rage. Media can, thus, be viewed to have immense power to shape perceptions of the population. The current popularity of social media confirms the issue at hand and reinforces social conditioning by developing the outlook of the world as well as the people's perception of reality (Tierney, 2014).

Social media encourage transactional relationships, in which users act as producers as well as consumers of content. While social media have been among the most revolutionary aspects of freedom of expression, their usage has resulted in attention-seeking behavior among users. The most appropriate explanation of the issue involves the concept of suicide contagion, where perpetrators of mass shooting seek public attention through social media posts (Lopatto, 2015). They consider technological immortality to be a more relevant pursuit than the preservation of their own lives, such that their activities are driven by the craving for notoriety. A

desire for morbid publicity is believed to inspire perpetrators in planning and executing mass killings (Follman, 2015). Mass shooters may draw operational details from social media posts with the motive of staging greater carnage (Keane, 2015). Folman (2015) drew attention to the 1999 Columbine High School massacre copycat who perpetrated the 2007 Virginia Tech incident, describing the latter event as the most notorious demonstration of the role of social media in perpetuating mass shootings.

Notoriety craving has become a widely discussed concept, with Keane (2015) noting that media exposure can encourage copycat killings. The problem has sparked a recent wave of guidelines whose proponents seek to regulate social media content to prevent the spread of violence. However, policing is a challenge because of the cloak of anonymity provided by the Internet and recent developments in artificial intelligence (AI). Evidence of the urgent need to police social media interactions was shown in the case of Microsoft Corporation's Tay, where efforts to create a super-intelligent chatterbot capable of sustaining conversations on Twitter resulted in racist and sexually charged messages that forced the company to shut the service off within 24 hours of launch (Vincent, 2016). Semitic slurs by bots on Twitter also remain a persistent problem in the United States, a perennialism that confirms the FBI's claim that the incidence of mass murder has increased significantly along with the surge in social media usage. Social media platforms have thus been regarded as the driving force behind hate crimes, in that they provide a platform for perpetrators to stage coordinated sensitization campaigns with minimal financial implications (Miller, 2015).

In addition to encouraging stereotyped, comic portrayals of some segments of the population, social media offer a platform for learning prejudices. According to Rubens and Shehadeh (2014), the media are the most significant platform for spreading images and perceptions of gun violence. Behaviors that users learn from these representations are evident in negative acts such destruction of property and violence (Miller, 2015).

The literature not only depicts an increasing trend in mass shootings. Literature also suggests that social media have contributed to the continued rise in criminality through the spread of adverse influences on the consumers of their content. As Tierney (2014) posited, social media have emerged as a fundamental reason behind mass shooting incidents in the United States. Scholars Metzl and MacLeish (2015) argued that there is a need for research analyzing the influence of social media in mass shootings, contending that the phenomenon is still unclear. This study, in response to this need, addressed the role of social media in the spread of xenophobic ideologies and suicide contagion.

Problem Statement

The fact that the United States has the highest number of mass shootings compared with other developed economies represents a significant security concern (Bonanno & Levenson, 2014). Recent statistics indicate that mass shootings, gun violence, and related occurrences are matters of concern facing the United States. Jashinky et al. (2016) concluded that media shaped an estimated 65% of mass-shooting incidents and gun violence. Between 2013 and 2016, there were 32,888 fatalities. Content of print and social media platforms revealed to the public that such acts of mass shooting are unstoppable, but perpetrators mostly escape prosecution and

punishment for their crimes by committing suicide after the carnage. By taking appropriate measures, such as tapping the expertise of media technologists, sociologists, and criminologists with specialized training in mass-shooting prevention, protection, and survival, it may be possible to gain ground against mass shootings. Existing literature shows fewer efforts to address the influence of social media on the occurrence of mass shootings in the United States (Brown & Goodin, 2018; Jonson, 2017).

The increasing trend of mass-shooting or active-killer incidents over the last half century has challenged law enforcement and the entire criminal justice system in the United States. With the emergence and surge in popularity of social media applications, this issue has become more challenging than ever (Miller, 2015). The challenge was explained in terms of the propagation of ongoing threats and mass shooting incidents in the country via Internet usage. As Gillin, Valverde, Jacobson, and Greenberg (2017) explained, the production and consumption of social media content happen simultaneously, making social media difficult not only to control, but also to regulate. The recognition that real-time policing and intelligence gathering in social media represent a significant challenge comes at a time when the United States is faced with strong distractors when dealing with mass shootings. Most studies identify gun ownership as the primary factor driving high homicide incidence in the United States. However, critics have disputed this view, noting that violence is a psychosocial issue (Gillin et al., 2017).

The definition of mass shootings is a divisive issue among scholars and policymakers. The lack of an accepted or standard definition of mass shootings has culminated to restrictive views, where people perceive mass murders based on existing misrepresentations. Self-serving

biases are evident in the association of mass shootings with neurological conditions. According to this view, people with mental disorders take advantage of gun violence (Gold, 2015).

However, recent events have weakened this narrative. For instance, Stephen Paddock, the perpetrator in the mass murder of 58 people during an October 1, 2017 concert in Las Vegas, did not have any documented history of mental challenges (Gillin et al., 2017). A related issue in terms of conceptualization is the nature of a mass shooting, where the most divisive debate involves whether to regard such an event as domestic terrorism.

Scholars have noted that mass killings culminate in intimidation and economic sabotage, in the same way as terrorist activities. Nevertheless, critics dispute the coercive element of mass shootings, highlighting personal-level issues as the motivation for such events rather than shared ideology. An inquiry that exposes the relationship between social media and mass shootings in the United States may help in addressing the loopholes in existing policies and provide an application framework toward reducing the occurrence of such crimes.

Purpose of the Study

The purpose of the study was to address the role of social media platforms in the spread of xenophobic ideologies and suicide contagion. In this research, I sought to document subjective knowledge, using a theory-building approach to elucidate the mechanism behind mass shooters turning to social media. I used in-depth interviews and case studies to elicit ontological views in an effort to redress the limitations of existing research on the role of social media in mass shootings. The study was founded on the premise that regulation of Internet content is important in preventing future mass shootings. The research explored means of realizing the potential

efficacy of law enforcement agencies not only in preventing violent attacks, but also in mitigating hate crimes and the suicide contagion, which are commonly believed to be facilitated by social media platforms.

Research Question

What role does social media play in influencing the actions of the perpetrators of mass shootings in the United States?

Conceptual Framework of the Study: The Social Ecological Model

The study was grounded in the social ecological model (SEM). The SEM posits that all social problems may be described in terms of intrapersonal aspects, interpersonal issues, community-level factors, and societal influences (Rubens & Shehadeh, 2014). As originally conceptualized via Bronfenbrenner's systems theory, SEM models focus on "the interaction between an individual and their physical and sociocultural environment," indicating that "behavior affects and is affected by multiple levels of influence" and that "individual behavior 'both shapes and is shaped by the social environment'" (Leiman Parker, 2018, p. 264).

Researchers in the fields of health and violence working with organizations such as the United Nations Children's Fund (UNICEF) and the Centers for Disease Control and Prevention (CDC) have adopted the SEM in developing theory-based frameworks to facilitate an understanding of the multifarious and synergetic influences of personal and environmental factors that explain behavior. Additionally, the model finds utility in the recognition of behavioral and organizational leverage points and intervenors for health promotion or violence prevention (CDC, 2019; UNICEF, 2014).

The levels in the SEM structure indicate that phenomena such as homicide interact with each of the four categorizations, which present this research with an opportunity to explore a specific theme. In this study, SEM provided a template for categorizing the vulnerabilities of social media consumers with respect to extremist ideologies on the Internet and explaining how the platform catalyzes hate crimes and xenophobic views. The theory-based framework is, therefore, a behavioral pillar that provides a way of evaluating violent behaviors and understanding the interaction between offenders and environmental factors. In this study, the SEM was instrumental in outlining the multifaceted nature of mass shootings, where numerous issues converge to motivate individuals to undertake murderous acts.

For instance, existing literature indicates that past psychological trauma, single parenting, sexual assaults, and social stigma contribute to gun violence (American Psychological Association, 2017). In addition to psychosocial issues, psychosis, among other behavioral challenges, can lead to delusions that can culminate in public killings. Schizotypal personality disorders and psychopathic behaviors are associated with narcissistic expressions, sadism, lack of conscience, and lack of empathy. Poor anger management and easy access to guns also tend to increase mass murder statistics. Controversy persists regarding the cause or causes of mass shootings. Nevertheless, the SEM proposes a framework for classifying motivations for a massacre, making the subject in question researchable.

Within an SEM perspective, intrapersonal-level influences are critical in explaining individual motivations for mass shootings. While killers are pushed mainly by enabling factors in the ecology, the execution of plans is usually a personal issue. Rubens and Shehadeh (2014)

noted that perpetrators of gun violence have a long history of resentment and anger. They may be preoccupied with feelings arising from bullying and threats, and they may consider their acts within the context of a self-fulfilling mission to combat the injustices of society.

Another aspect of violent acts is their relationship with the social setting/community. Community-level influences are essential in explaining mass shootings. While an individual may express homicidal ideation, opportunities at the community level can supply or amplify the feeling. For instance, social isolation can lead to anger that prompts perpetrators to undertake a killing spree as a means of punishing a rejecting community.

The societal influence is the broadest and most complex source of motivation. While this influence was the primary focus of this study, the other three levels are also significant. According to Rubens and Shehadeh (2014), the media provide the most significant platform for spreading images and perceptions of gun violence. News coverage provides the ideas for social debate, with Facebook and Twitter allowing such issues to trend. The infamy of violent tragedies extends the long-term effects of mass shootings, as fascination with such crimes can lead other individuals to attempt similar acts. The sociological explanation draws evidence from mass killings, where previous massacres such as the Columbine shootings remain a source of inspiration to aspiring mass murderers (Rocque & Duwe, 2017).

Nature of the Study

I adopted a qualitative approach for this study, using both oral and written interviewing techniques with application of selected case studies. Case studies presented selected instances of mass shootings, including the circumstances surrounding the incidents and how law enforcement

agencies perceived and responded to the situations. Open-ended questions were formulated and administered to identified participants including FBI agents, local police personnel, paramedics, and other experts. Through this approach, I sought to unearth the factors that associate social media with the occurrence of mass shootings. I chose the qualitative method to guide the research design, cognizant that it would offer room for more elegant interpretation of the phenomenon under study, as indicated in Vincent (2016).

In evaluating the role of social media in mass shootings, I also applied Down's issue-attention cycle, as suggested by Follman (2015). According to Flew (2017), people visiting social media sites hold different perceptions of the events that attract their attention. Because social media offer a compelling platform for sharing news on mass shootings, the Down's issue-attention cycle was helpful in analyzing the impact that such news has on an audience. Through qualitative research, I attempted to assess whether social media served as a tool that influenced perpetrators of mass shootings toward committing such crimes.

Definitions

The following terms used in this study have been operationally and/or conceptually defined for a clearer understanding of the discussion.

Mass shootings: Isolated killing sprees that are characterized by horrific desperation and regarded as highly violent acts (Annas & Knoll, 2015). A new term introduced by the Department of Homeland Security, *active shooter*, has been used to reference mass shooting events. An active shooter is defined as “an active individual actively engaged in killing or attempting to kill people in a confined and populated; in most cases, active shooters use

firearm(s) and there is no pattern or method to the selection of their victims” (Schildkraut & Elsass, 2016, p. 17).

Social media: Computer-mediated technologies that allow sharing of information and ideas among virtual networks and communities (Flew, 2017).

Suicide contagion: Spread of suicidal behavior through learning and admiring celebrity status that arises from media covering public shootings (Koslow et al., 2014)

Aggressive tendencies: Unprovoked attacks and other menacing acts through which people seek to harm others intentionally (Annas & Knoll, 2015).

Moral panic: Heightened public fear in response to ferociousness that threatens a community (Garland, 2008).

Assumptions

I recognized the threat of bias among the interview informants, given that mass shootings represent a highly politicized subject of inquiry. However, it was assumed that engaging practitioners who had firsthand experience of combating mass shootings or active killer incidents, rather than policymaking- and/or legislation-related backgrounds, would minimize bias. Persons working in the security sector, including the FBI, state law enforcement, and local police, are actively engaged with the subject in question and are believed to possess updated knowledge about the trends in mass shootings. In their line of work, they are also expected to be well informed on policies and legal tools instituted to deal with gaps in intelligence gathering, as well as to stop the use of bots in spreading prejudicial messages. Hence, the study employed insights from federal, state, and local law enforcement personnel and other professionals with

comparable expertise, such as emergency response personnel and mass shooting survival trainers. Transcripts of interviews with the above experts were analyzed together with selected mass shooting case studies to address the research question.

Scope and Delimitations

The primary aim of the study was to ascertain the role of social media in shaping the behaviors and actions of mass shooting perpetrators in the United States. Aspects included in the discussion included the criminological content of social media platforms, the perceptual ability of social media consumers and their effective relationship with the commission of mass shootings. The participants were law enforcement personnel and other professionals who were subject-matter experts in preventing, combating, and surviving mass-shooting incidents. The study did not provide specific policies and provisions for mitigating the influence of social media on mass shootings in the United States but offered a comprehensive framework that can be applied in policy formulation.

To ensure that the results of this qualitative study can be practically applied or transferred to other settings, an attempt was made to provide a robust and detailed account of the experience through the use of thick description, drawing from the recommendations of Lincoln and Guba (as cited in Korstjens & Moser, 2017). To enhance transferability, I strove to make emphatic connections to the contextual background of the interview both culturally and socially via the SEM. The objective of a thick description is to enable other researchers to undertake transferability judgments for their research settings. Additionally, through proper referencing of works of literature that helped in the analysis of the effects of social media on mass shootings in

the United States, this research also presented points to guide transferability to comparable contexts. The study also addressed situations depicting the extent of school shootings that made headlines in the United States, as well as detailed illustration of social media use by perpetrators to infuse transferability.

Limitations

It is important to identify limitations to a study because they are likely to place the researcher at a disadvantage and could prevent the establishment of robust conclusions (Kerlinger & Lee, 2000). One of the constraints of this study was the issue of opinionated responses because the research involved highly politicized issues, where existing perceptions and stances might influence responses, particularly in relation to gun control. This problem can affect the theory-building goal of a study if conceited assertiveness and dogmatism dominate the expert inputs. Objective views may not always conform to the principle of the truism, and this aspect was evident from the interviews, considering that the subjects were very zealous about their intention to stop mass shootings. Young (2014) confirmed the challenge, noting that untruthful responses culminate not only in response bias, but also in misleading findings. In this study, however, I ventured to elicit opinions from professionals in different fields with the aim of reducing the bias effect.

Another limitation of the study was that it did not incorporate statistical techniques other than descriptive statistics—that is, frequency and percentage distributions of themes and subthemes (parent nodes and child nodes). Marczyk, DeMatteo, and Festinger (2017) claimed that quantitative methods help in providing an improved understanding of a problem by

presenting quantities that broaden the understanding of the variables under study. In this regard, those conducting future research inquiring about the theme of this study should consider empirical research and inclusion of quantitative analysis, given that the present study already presents a well-researched qualitative analysis. Second, the research opened a gap by not cross-examining staff from social media sites and victims of mass shootings because the focus of this study was the law enforcement angle; thus, future studies should consider gathering insights from these persons as well to gain insight from a different angle.

An additional limitation of the study was its methodology, particularly the interview method with local and federal law enforcement personnel. A major necessity in interviewing law enforcement personnel is profound respect and politeness, as highlighted in Kerlinger and Lee (2000). Within law enforcement culture, people respect and admire seniority, to the end that interviews with senior personnel should be carried out with utmost respect and politeness. Considerations for identifying law enforcement experts as subjects for interviews were not confined within social status and seniority issues. Kerlinger and Lee also emphasized that identification of interview subjects is predicated on the type of information that the researcher aims to receive. This study was conceptualized and delimited to collect information about work experience, professional opinion, and knowledge. In this regard, as the interviewer, I also considered carefully how the questions were posed to make sure that they neither interfered with ongoing investigations nor made the interviewees feel uncomfortable.

As the interviewer, I made an attempt to ensure that the answers received were the ones that I intended to obtain through the interview process. In this regard, I used discussion

interviews to encourage the respondents and make them more enthusiastic when responding to the questions. Moreover, I endeavored to focus the interviews on the questions and the desired answers in spite of the fact that it can be challenging to control the scope of the process when using unstructured and open-ended questions, as noted in Young (2014). Other techniques to make the most of interviews include alternative answering methods and interviewer familiarity and facility in the delivery of questions to the extent that the questions are memorized so as to maintain smooth-flowing interaction and conversation. The aforementioned measures are believed to assist subjects during the interview process in elaborating more effectively and keeping their focus on the question.

Within a qualitative research model, it is deemed important to consider the role of values in the data-gathering process. Thus, documentation of data/information from interviews and case studies, together with analysis, articulates a synergy of the interpretation of the subjects and the researcher. It is noted that the results presented contain value-laden statements and biases. However, being aware of the context of the study, I sought to establish a generalized analysis.

Significance

This study represents a critical step toward a better understanding of how social media have influenced mass shootings in the United States. Whereas other explanations for mass-shooting incidents have been widely researched, the role played by social media remains underresearched. As pointed out in Gillin et al. (2017), media in their entirety remain a critical tool that shapes public thought and discourse. Media output, therefore, plays a crucial role in influencing how people think, and how they act on these thoughts. The foregoing statement

implies that presentation of mass shootings in media profoundly affects public thought; it is, therefore, arguable that the perpetrators of such crimes derive their ideology from media, as noted in Follman (2015). Also, the traditional forms of media are increasingly made obsolete by new media platforms. The new media platforms have a broader and more effective reach, necessitating the analysis of how such platforms influence the actions of mass-shooting perpetrators. The philosophy of criminal law speaks in terms of excuse, wrongdoing, and justification of perpetrators; the profession may benefit from this study through a philosophical perspective on the increase in mass-shooting incidents and the role of social media in these occurrences. Hence, scholars may also gain insight on the mentality of perpetrators viewed through the lens of law enforcement and learn how best to control their behavior (Rocque & Duwe, 2017).

Social media are, undoubtedly, among the greatest drivers of globalization. They offer different platforms through which ideologies, political statements, and views are freely shared across the globe (Gillin et al., 2017). Given that globalization has made it easier to share information around the world, this study examined how social media provide a platform where mass-shooting perpetrators are affected to commit these crimes. The history of mass shootings suggests that the actions of perpetrators are influenced by particular ideologies or viewpoints. This study ventured to provide insight on how social media partake in propagating doctrines that drive the actions of mass murderers.

The literature on mass shootings demonstrates a high prevalence of shooter scenarios in the recent years, including the highly publicized shootings at Columbine High School; Virginia

Tech; Sandy Hook Elementary; the Charleston Church; Las Vegas; Sutherland, Texas; Stoneman Douglas High School; and, just a few days ago as this study was being prepared for the final edit, El Paso, Texas, where 22 people were killed in a Walmart shooting, including a 15-year old student and a 90-year-old immigrant (CNN Library, 2018; Knowles, 2019). The results of this study revealed how mass shootings evolved with the use of social media. Other factors such as ideological or political division, which the media regularly report, and which precipitated the shootings, remained constant. It is therefore critical for the relevant authorities to come up with timely and practical policies to counter the shooting incidents that are expeditiously captured and shared through social media (Bonanno & Levenson, 2014).

This study has various individual and community implications for positive social change. According to Graziano and Gauthier (2018), the police can communicate information to notify the community about persons who may potentially perpetrate harmful activities. They can also inform members of the community about how they can avoid devastating consequences (Bonanno & Levenson, 2014). Additionally, the police may be able to infiltrate terrorist groups that recruit teenagers using social media by posing as potential sympathizers to their cause; hence, they may be able to cripple such organizations from within (Gillin et al., 2017). The above-mentioned practices or comparable efforts can significantly shield vulnerable people from being negatively influenced when presented with extremist ideologies of terrorist groups. Lastly, Garland (2008) argued that the community may benefit from the findings of a study such as this one, in that law enforcement officials need to maintain constant communication with citizens through social media in a way that encourages open communication and transparency.

Summary

Mass shootings have, so far, remained an interminable challenge in the United States. Despite the current criminological actions and reactions, the issue persists, with many government policies being ineffective, grossly oversimplified, and/or highly politicized. The present body of literature has also not presented agreement about what mass murder entails, as well as about its nature, an issue that has resulted in a myriad of practice challenges. Advances in digital media have worsened the perennial of mass shootings or active-killer incidents. At the same time, a growing body of evidence has documented that publication of adverse materials online has culminated in the globalization of prejudicial views. This trend has resulted in moral panic, with the public expressing concern that youth are turning extremist. Accordingly, outpourings of public horror and outrage necessitate a study to explore the potential role of social media in reinforcing aggressive tendencies that drive perpetrators to commit mass shootings.

The remaining parts of the study are the literature review, methodology, discussion, and recommendations. The literature review explores central themes in the current stock of knowledge, an exploration that helps in refining the codes of theory-building pursuance. The methodology describes research perspectives and approaches, while the discussion narrated on the findings. Recommendations include ways of countering online hate crimes and unethical use of social media.

Chapter 2: Literature Review

Introduction

As early as the 1950s, mass shootings caused public outcry (Loke & Grimm, 2017). As Eveland (2013) noted, law enforcement agencies and other organizations have shown a commitment toward reducing these incidents and their effects on the population. However, as seen in a case presented by Chuck, Johnson, and Siemaszko (2018), mass shootings have become one of the most dynamic forms of crime, making the efforts of stakeholders less effective as the perpetrators introduce better ways of executing their intentions. In this study, I sought to conduct research on the role of social media in influencing the actions of individuals who perpetrate mass shootings in the United States.

This chapter first presents a brief background of the topic with a discussion of the *history of journalism and its role in the Constitution*, the effects of media on public perception, and the advent of social media. Afterward, I document the search strategy used to obtain the materials investigated. The strategy was structured to obtain all relevant past information to aid the development of the study. The conceptual framework follows, with a description of the model on which the study was based to address the research problem. Finally, in a review of current literature, I present a critical analysis of past research on issues or factors to build a framework to support the theme of the study. The studies covered in this review address issues such as citizen journalism, media regulation, the impact of unregulated citizen journalism, reports of mass shootings, suicide contagion in mass shootings, the media contagion effect, and American society. The literature review also encompasses theoretical work on the copycat effect, different

views of mass shootings, explanations for effects of media violence, the moderators of short-term and long-term media effects, credibility judgments, and the significance of big media data. Lastly, an exposition is made on the application of social media platforms to detect and deter mass shootings, intervention strategies, best practices for reporting social media news, and lessons learned by law enforcement agencies.

Background Information

Social media have revolutionized most aspects of life, including crime. Due to the dynamics of mass shootings, most previous literature has been rendered obsolete, justifying the need for more investigation and compilation of relevant literature that can be used to address the issue in its current form. According to Bonanno and Levenson (2014), the United States has the highest number of mass shootings among developed countries. The number has been growing over time, and this trend has been attributed to various factors. Anisin (2018) suggested that more people had been injured or died in mass school shootings in the United States in the previous 18 years than in the whole of the 20th century. Between 1983 and 2012, there were 78 mass shootings leading to the deaths of 547 people. To put these figures into context, 11,622 persons—over 20 times the mass shooting toll over the past three decades—died in mass shootings in 2012 (Anisin, 2018).

One of the key arguments is that science and technology have made it easier to communicate, thus overcoming barriers such as time differences and geographic distance (Bonanno & Levenson, 2014). Auxemery (2015) extended the discussion in Bonanno and Levenson (2014), arguing that the inclusion of media specialists, influencers, and criminologists

in the war against crime can only be effective if there is a thorough understanding of how dynamics in the technology and communication sectors have revolutionized mass shooting as a form of crime. However, more analysis needs to be conducted on the history and role of journalism.

History of Journalism and Its Role in Enforcing the Constitution

Like some new careers today, at one time, journalism was not held in especially high regard or esteem. Most often, it was believed to be a practice of people who sought to avoid “real” work. Later, journalists began to gain recognition for their work and extensive efforts (Flew, 2017). The first journalist’s foundation was recorded in 1883 in England. In 1933, the American Newspaper Guild, an institute that functioned as both a professional organization and trade union, was established. From the advent of newspapers to the mid-1800s, journalist professionals operated in their field as novices, most often starting out as cub reporters and copy boys (Koslow, Ruiz, & Nemeroff, 2014). Journalism was first recognized as an academic field in 1879, when the University of Missouri introduced it as a 4-year course of study. In 1912, Columbia University in New York followed by including journalism among other graduate programs; this was facilitated by Joseph Pulitzer (Flew, 2017).

Flew (2017) also claimed that the complexity of news reporting was recognized in a globalized world that embraces mass media, even though the telegraph was the main instrument of delivery during that time. Consequently, journalism grew in leaps and bounds. Comprehensive reporting of business, economics, science, and politics contended for public attention. Later came radio and motion pictures, and ultimately television, and the need for expert and refined

techniques and skills became exponentially greater. By the 1950s, journalism was a common course in American universities. Texts and literature on journalism also grew to keep up with the new demand for future journalists and their school instructors. Soon, historical, biographical, and anecdotal information on journalism as a subject filled the stacks (Flew, 2017).

According to Grimm (2017), since the 1700s, journalism in the United States has been championing social responsibility. However, there were dark times in which journalism was associated with ultra-persuasive tactics and outright dishonest means to influence public perceptions, inflicting fear to motivate individuals. Today, such journalism is branded “yellow journalism,” which has had a separate place and history in the growth and development of journalism. Above all, journalists today are careful to avoid such tactics (Grimm, 2017).

Invariably, the media play a significant role in upholding the rule of law. Additionally, the media have to assume responsibilities toward society by maintaining standards of independence and impartiality (Coleman, 2018). An independent and free media in the United States is mandated to expose cases of abuse even on the part of authorities, whenever and wherever these occur, as well as hold both the private and the public sectors accountable. The country’s institutions, especially the courts of law, are tasked with determining the illegality of exposed abuses and presenting corrective actions (Coleman, 2018). The authors of the U.S. Constitution guaranteed the judiciary its independence and provided democracy with the right to free expression based on the rule of law (Grimm, 2017).

Origins and Effects of the Media on Public Perception

The impression that media exposure impacts individual perceptions, irrespective of the accuracy of these perceptions, dates to the era of Plato. Nonetheless, modern communication research presented by Merton (1948) and Lazarsfeld (1971) asserted that the perceived importance and influence of media relate to almost magical credence in their influence (Coleman, 2018). Such researchers claimed that the enforcement of social norms is a major function of the media. Mass-media depictions of aberrant actions are highly persuasive and convince people that certain acts or behaviors are dissolute. However, instead of strengthening social norms when the public is exposed to certain deviant behaviors, they tend to believe that media content defines what some people view as proper or improper behavior.

In 1983, Davison published a persuasive statement regarding assumed media influence in the article “The Third-Person Effect in Communication.” Davison explained that people involved in mass-media persuasive communication believe that it has a greater effect on other people than on themselves. Secondly, the third-person effect posited that the professed media impact may influence them to take certain actions (as cited in Koslow et al., 2014). Current pieces of literature describe the two aforementioned components as the perceptual and behavioral third-person effect, respectively. Davison's article contains fascinating anecdotes accompanied by examples, but the empirical evidence is mainly focused on the perceptual component, and the work was based on a small sample. Davison wagered about consequences but failed to present any evidence or examination backing up the notion that the perceptual gap is influential in determining individual behaviors or attitude (Koslow et al., 2014).

The Advent of Social Media

Human beings are generally referred to as social animals, where communicating and socializing with other people are among their primary needs. Human social networking dates back about 100,000 years. Historical evidence indicates that early people formed their own social networking methods. Today's version of social networking was enabled with the emergence of the Internet in the 1980s alongside the World Wide Web, which brought the ideal social networking medium through social media. The World Wide Web is a social web that connects more than half of the world's population. In the past, popular social-media platforms included Friendster, My Space, and LinkedIn, to name a few (Reuter & Kaufhold, 2018).

Launched in 2002, Friendster endorsed the impression that individuals with common bonds are capable of having an enhanced online experience. Regrettably, after a series of technical anomalies, the firm suffered a deep financial loss, which compelled it to abandon its social platform branch; the company is now limited to online gaming. The leaders of LinkedIn, another social media platform launched in 2003, decided to adopt a moderate approach to the social media industry. Unlike other platforms in the industry, LinkedIn presented itself as a networking resource for professionals who need to connect with other professionals. Incidentally, through his LinkedIn profile, the chief financial officer of Oracle, Jeff Epstein, was headhunted for his role in the company. This network's popularity is attested by statistics suggesting that every second, a new person joins the site. However, the main breakthrough for social media occurred in 2004, when Facebook was launched. Initially considered a social

website for college students, it was later made available to the general public (Reuter & Kaufhold, 2018).

Today, Facebook has more than 500 million users all over the world. The innovative and smart moves of Mark Zuckerberg, the chairman and chief executive officer (CEO) of Facebook, facilitated the company en route to supreme control of the social media industry. Third-party application (app) developers considered the open API as an advantage that assisted them in creating apps that could work within Facebook. At one point, the firm had numerous apps that it displayed in a Facebook store. The “Like” button or reactions were another reason for the site’s success, which allowed Facebook to break free from its bounds and dominate social media.

Twitter is another popular social media platform that was launched soon after Facebook. During its launch in 2006, Twitter operated as a microblogging platform comparable to texting. Today, Twitter is a customer service module, a public relations tool, and a branding hub for products. To date, the United States is the country with the greatest number of Twitter users, followed by Japan and the United Kingdom, respectively.

One additional popular social media platform is WhatsApp. The site was launched in 2009 by Jan Koum and Brian Acton. This freeware is a cross-platform voice and messaging-over-Internet protocol (IP) service. It allows the sending of text messages, images, voice calls, video calls, documents, user location, and other media. When it was acquired by Facebook for \$19 billion in 2014, WhatsApp was the world’s largest messaging service (Tierney, 2014).

Tierney (2014) argued that the popularity of social media can be credited to the increasing popularity of smartphones, tablets, laptops etc. These handy accessories that have all

of the features of a desktop computer assisted in propelling social media influence. Certain social media apps such as Instagram and Snapchat are entirely based on mobile computing.

Literature Search Strategy

To retrieve relevant publications, I searched several databases. Boolean search strings were used to conduct a literature search in various databases, including Google Scholar, EBSCOhost, Science Direct, and Questia. A publication-date range from 2013 to 2018 was included as an inclusion criterion. However, older materials that were helpful in defining concepts or presenting a history of certain theories or models were also considered. Additionally, I used the Federal Communications Commission (FCC) database. Relevant media articles were retrieved from their respective websites. I applied relevant search phrases, including “social media and mass shootings” or/and “social media influencing mass shooting” or/and “role of social media in the spread of suicide contagion and xenophobic ideologies”.

Furthermore, the research incorporated bibliographic catalogs from the Walden University Library. I then skimmed the results from the reference list and the literature search to acquire readings and journal articles relevant to the study. After the online search process and review of relevant content, abstracts were accessed to determine articles that properly aligned with the aim and objectives of the study.

The first exclusion process involved eliminating all non-English articles. The study rationale following the eligibility criteria was that research that was merely descriptive could not provide enough evidence regarding law enforcement perceptions of social media as an influence

in mass shootings. Hence, the eligibility criteria for inclusion in the literature review were as follows:

1. The article was a systematic review, research article, or meta-analysis.
(Communications, letters, and research resources on descriptions and trends were excluded.)
2. The basis of the research findings was a nonfictional media portrayal of mass shootings.
3. The analysis of social media reports was linked with some outcome measures of mass shootings (e.g., rate of mass shootings and mass shooting ideation).

At this stage, I excluded 758 impertinent articles and retrieved 75 full texts of articles that were further analyzed to assess their eligibility. After the final eligibility assessment, the research included 52 articles. Due to the nature of the study, the heterogeneity of the search mechanism limited undertaking a quantitative synthesis of the articles. Hence, I only performed a qualitative synthesis and presented key theories and concepts.

Conceptual Framework

As introduced in the previous chapter, the SEM considers the interplay among the individual, the community, relationships, and other societal contributions (Simplican, Leader, Kosciulek & Leahy, 2015). Ohri-Vachaspati et al. (2015) explained that the model was introduced in the 1970s by Bronfenbrenner as a conceptual model to help people understand human development, and during the 1980s it was formalized as a theory. Ohri-Vachaspati et al. (2015) added that the theory was illustrated by creating circles that placed an individual in the

center and surrounded the individual with a range of systems. As depicted in Appendix A, the SEM model contains overlapping rings. The rings, presented in different colors, illustrate how a factor in a single level can influence other factors at different levels (Dunn, Kalich, Henning, & Fedrizzi, 2015).

The individual is similar to a microsystem that has the strongest influence and encompasses relationships and interactions of the immediate surroundings. The mesosystem is the second circle, and it goes beyond immediate interactions by including other persons who have direct contact with the individual, such as those in the individual's neighborhood, school, work, and church. The individual is not directly impacted by the exosystem (the third circle), but it exposes the individual to both positive and negative interactive forces, such as social networks and community contexts. The macrosystem is the third system, and it consists of cultural, religious, and societal influences and values. Lastly, the chronosystem includes all elements of historical content and time and sometimes includes policy as an influence (Ohri-Vachaspati et al., 2015).

The theory is significantly related to this study because it makes investigators identify with the different factors that protect people from violence, puts them in the face of violence, or makes them violence perpetrators (Simplican et al., 2015). Apart from assisting in clarifying factors influencing mass shootings, the model also illustrates that in preventing violence, one needs to act across multiple levels at the same time (Ohri-Vachaspati et al., 2015). The suggested multiple-level approach is more likely to uphold efforts of prevention compared to any single form of intervention (Simplican et al., 2015). Additionally, the research question for this study

was compatible with SEM and facilitated explanation of the implications of mass shootings from a law-enforcement perspective, thus aiding the law enforcement effort to understand and do away with the problem.

The health construct was largely modeled using this theory and it focused on major contributors affecting the health sector. For instance, the CDC applied SEM to facilitate its numerous health-promotion activities to comprise interpersonal, community, organizational, and policy spheres. Besides, as Urie Bronfenbrenner acknowledged SEM's contributions to the study of human development, subsequent adoptions and revisions utilize the model to characterize various advances to areas, such as promotion of public health, geriatric preventive health, colorectal cancer prevention, healthy college campuses, and violence prevention (Ohri-Vachaspati et al., 2015).

Dunn et al. (2015) utilized SEM to explain a social-ecological framework that forms the basis for understanding human behavior, relationships, and interactions. The view is pioneered by the classic formula of Kurt Lewin ($B = f(P, E)$), which indicated that behavior is a function of how an individual interacts with the environment. When it comes to young children, parents and their caregivers shape their environments, whereas the environment of school-aged children is shaped by the adults surrounding them. Dunn et al. (2015) contended that the first 18+ years of an individual is influenced by adults who shape the person's development and entire social ecology.

Gruenewald, Remer, and LaScala (2014) used the SEM to test alcohol use among adolescent children. The authors based their research on the model and other social-ecological

theories that imply that the availability of alcohol and the characteristics of an individual drinker affect the use of drinking contexts and patterns. The research analyzed demographic relationships as well as individual drinker's personality characteristics and the city environmental characteristics to measure the use of drinking contexts and drinking patterns.

As illustrated above, SEM was used to investigate the extent and significance of influences within a community and the general environment. In a similar way, this research benefited from SEM because it helped to discover and assess the role played by social media in connection with incidents of mass shooting. A more detailed analysis of various research dealing with the topic is presented below explaining the relationship between an individual, his relationships, the community, and other social contributions as described in the model.

Review of the Current Literature

Citizen Journalism

Splichal and Dahlgren (2016) suggest that traditional journalism was highly regulated by stakeholders, such as government and investors in the media industry. Even prior to regulation, many obstacles existed, and journalists could only cover limited events. Key limitations included logistics, equipment, and information on issues to be covered. However, in the contemporary world, journalism has become more liberal (Splichal & Dahlgren, 2016).

Meanwhile, Campbell (2017) indicated that practitioners in this field have found ways of expressing themselves and informing people about key issues while avoiding the traditional limitations. He also argued that since then, information has become easy to access; equipment, such as cameras have become cheaper, while connection channels have become more diversified

and easily accessible (Campbell, 2017). Campbell (2017) also attributed the development of a new concept in media normally referred to as citizen journalism to the availability of affordable gadgets and platforms. According to Loke and Grimm (2017), citizen journalism refers to the actions of collecting, disseminating and analyzing key information and news by people other than those employed in the field of journalism (Loke & Grimm, 2017). Allan (2017) noted that the term 'citizen journalists' was coined to refer to individuals who took photos and videos of the 2004 tsunami in Southeast Asia or those who recounted firsthand experience related to the catastrophe. Today, the definition of citizen journalism has been broadened to include individuals who are not necessarily at the place and time of the incident, but simply provided detailed insights and analyses of the incident (Allan, 2017).

Factors influencing citizen journalism and media regulation. Other scholars like Coleman (2018) and Soler and Marcé (2018) examined the driving factors behind citizen journalism. According to Coleman (2018), the main factor behind the rise of citizen journalism is access to tools that allow individuals to publish, especially those who feel locked out of the major publishing channels. However, being locked out of publishing sources is not a strong reason when accounting for citizen journalism (Coleman, 2018). Soler and Marcé (2018) argued that there are instances where individuals initiate a range of complex reasons to explain their reporting behavior. They also indicated that in the US, the mainstream media has had to rely on amateur footages shot by people at the venues of key incidents (Soler & Marcé, 2018). The authors independently supported Campbell (2017)'s argument that gadgets, such as cameras and smartphones have become relatively accessible and cheaper and contributed to the expansion of

the concept of citizen journalism. Towers et al. (2015) also acknowledged that individuals with such gadgets could film any event that they feel is unique and may attract the attention of the public. Loke and Grimm (2017) affirmed Towers et al. (2015)'s position specifying that the Internet has provided many platforms through which people can reach out to the masses.

In regard to regulation, Loke and Grimm (2017) concluded that unlike the traditional professional journalism, citizen journalism is less regulated. Meanwhile, with reference to the West, Campbell (2017) regarded the media as largely considered to be unregulated because the government has completely no control over the Internet. Gillin et al. (2017) ascribed less regulated citizen journalism in the US as an offshoot of media freedom, which also provides opportunity for media houses to choose what to cover. It cannot be denied that owing to media freedom and practically nonexistent regulation, there are currently media houses that are branded as leftist, whereas others are considered right-wing. For instance, Fox News has been considered pro-republican for a long time (Stroud et al., 2014). The channel is known to lobby its listeners to support policies that promote gun ownership, increase military spending, and limit the role of the federal government in the lives of people. Meanwhile, CNN is one of the most significant media houses that are largely considered democratic (Eveland, 2013). Interestingly, during incidents of mass shooting, leftist and right-wing media houses give different interpretations of the factors resulting in the shootings.

Of special interest in the social media – mass shooting link is the gun control debate. Gun control laws become the main topic of discussions after mass shootings. Eveland (2013) claimed that leftist media houses try to explain why other factors may have resulted in the shootings other

than the gun issue, whereas those considered right-wing bring out the link between lack of gun control laws and the incident. Kutner (2015) supports the preceding statements pertaining to the left-right divide on the issue of gun control, but he emphasized that there are other television channels and media houses that choose to take a relatively neutral stand. Therefore, many Americans are likely to find the media houses that cover mass shootings in a manner that fits their inclinations (Narayanan et al. 2018). However, despite media popularity, US media houses have evolved into partisan polarizing tools that push for ideologies rather than objectively report incidents.

On the other hand, there are some countries where the government strictly monitors the Internet to the extent of shutting some sites down during specific times or after incidents as it sees fit (Campbell, 2017). In many countries where human rights and media freedom are curtailed by the government, citizen journalism is seen as a more liberalized platform for individuals to express themselves and spread uncensored news (Follman, 2015; Tierney, 2014). Follman (2015) also stressed that there are instances where governments have prevented coverage of key events, denying their people and the rest of the world an opportunity to witness events that may later affect them.

Traditional Journalism Versus Citizen Journalism

The difference between traditional and citizen journalism is the voluntary nature of work. Traditional journalism is highly professional whereas citizen journalism is participatory. The former is more than simple reporting of news (Loke & Grimm, 2017). Thus, the authors implied that any individual with a camera or pen can be a citizen journalist but not a professional

journalist unless trained in expression, observation, understanding, and responsibility. Narayanan et al. (2018) shares a similar view, but added that unlike traditional journalism, citizen journalism is mainly run by individuals who are not trained in media practices and ethics. Therefore, there are chances that people may disseminate information on the Internet without reflecting on its authenticity and impact on the masses.

Specifically, in the case of mass shootings, Bonanno and Levenson (2014) argued that citizen journalists share information with different motives, which may not necessarily be positive. Nevertheless, Magnusson, Hanson, and Barnes (2017) highlighted that mass shootings are usually sudden and unannounced. Individuals in professional media take some time before they can reach the scene. When these individuals access the scene of the incident, they are often barred from getting in because of the risk posed by the active shooter (Magnusson et al., 2017). Ardèvol-Abreu, Hooker and Gil de Zúñiga (2017) expanded on the above statement arguing that citizen journalists have a good understanding of such events before and during the shootings. In addition, some of these individuals have the courage to take photographs or video recordings of the entire incident. Others can tell the story of the entire incident and give individuals a clear understanding (Magnusson et al., 2017).

Usually, content from citizen journalists are of average quality and seldomly do not capture the value and essence of the news because citizen journalists rarely abide by ethics that govern traditional journalism. Ardèvol-Abreu et al. (2017) suggest that mainstream media has developed ethics and self-regulation over the years. Despite lack of government control and minimum regulation from authorities, professional journalists follow strict ethical codes that do

not allow them to present news on certain forms (Ardèvol-Abreu et al., 2017; Young, 2014). The above-mentioned characteristics attesting to more refined skills of traditional journalists reduce the threat of citizen journalism. However, it cannot be denied that one of the biggest challenges encountered by traditional journalists is that sometimes citizen journalists use the Internet to break news even before traditional journalists. This lessens general audience dependability on traditional media.

Additionally, Simons and Morgan (2018) claim that even if citizen journalists do not present breaking news stories, in many instances, the content that they provide forms the first clue for stories presented by traditional journalists. Hence, in contemporary times, content from citizen journalism has high significance despite its low quality. In addition, unlike traditional journalism, citizen journalism is pathbreaking in the sense that a consumer is also a contributor. Hence, it gives ordinary people the ability to express themselves and contribute to political and social change (Fox & DeLateur, 2014).

Nonetheless, Ali (2014) suggests traditional media enjoys more credibility and authenticity among the audience due to its well-established and elaborate functioning system and emphasis on responsibility and accuracy. Moreover, they underscored that the audience prefer news products that are prepared and disseminated by professional journalists and not citizen journalists, who are generally uninitiated in journalism ethics. This clearly indicates that citizen journalism does not replace traditional journalism, but rather, it can complement it. Thus, the belief that traditional journalists must contest with citizen journalists is a myth. Besides, Splichal and Dahlgren (2016) argued, citizen journalism does not pose many challenges to traditional

journalism. Schildkraut, Elsass, and Meredith (2018) justified the non-threat of citizen journalism to traditional journalism by stressing that the former is still in its developmental stage.

The Impact of Citizen Journalism on the Spread of Information

Wolfsfeld, Segev, and Sheaffer (2013) highlighted that citizen journalism had been praised in some instances where it helped people draw the attention of others towards key issues affecting the society. Wolfsfeld et al. (2013) noted that citizen journalism through social media was significant in helping people rally behind the revolutionists in the Arab Spring. It helped individuals across the Arab World to realize that they shared common problems which could be solved through unity (Wolfsfeld et al., 2013).

Allan (2017) noted that citizen journalism has changed with the spread of the Internet. He highlighted that in the 9/11 terrorist attacks and the 2005 London tunnel bombings, citizen journalism had a big role in helping the world understand the factors surrounding the incidents. During the time when the Internet was not yet popular and widely available, many people chose to tell their stories through mainstream media. Victims recounted their experiences on television channels, where journalists had the ability to edit whatever the victims said and disseminate the information that they felt was appropriate for public consumption (Allan, 2017). In contrast, when the 2018 Marjory Stoneman Douglas High School Florida shooting occurred, individuals were able to disseminate their experiences to the public without the need to involve mainstream media (Chuck et al., 2018). The noted that professional journalists had to report what was being shared on social media, especially personal stories, text messages from the hostages, photographs and videos to give their readers, viewers, and listeners a good understanding of the incident

(Chuck et al., 2018). Such accounts show that many people perceive social media as giving mass shootings better coverage than the mainstream media.

Allan (2017) explained increased preference for uncensored information from citizens because it feeds their curiosity. Ardèvol-Abreu et al. (2014), however, posited that most people trust information disseminated by professional media. However, they feel that social media provide raw and detailed accounts of key issues that take place in the society. The demand for uncensored information motivates individuals into citizen journalism (Ardèvol-Abreu et al., 2014). However, Wolfsfeld, et al. (2013) called attention to little or lack of regulation in the Internet as a means for individuals advancing different ideologies, including those which go against societal laws, norms, and morals, to collect and disseminate information to the rest of the population.

Still on the regulatory challenges on the Internet, Soler and Marcé (2018) echoed the call of government organs in charge of law enforcement policies, who have expressed concerns over the lack of adequate laws that regulate social media. Consequently, Facebook has come under criticism owing to the role that uncensored and unregulated information disseminated through it has played. The controversies and accusations culminated into summons for Mark Zuckerberg to appear before various arms and agencies of the government (Soler & Marcé, 2018). One of the key issues that emerged during the summons was that the freedom of Facebook users is unalienable. Vincent (2016) pinpointed this freedom as that which draws the attention of the people to social media while looking for news because they are assured that they will come across uncensored versions of the story. In this respect, Soler and Marcé (2018) highlighted that

people will continue engaging in mass journalism so long as social media platforms remain unregulated.

Traditional Media Versus Social Media in Reference to Mass Shootings

Mass media has assumed an important role in determining public opinion in reference to debates on gun control and gun violence (Soler and Marcé, 2018). Traditional media broadcasts such information immediately, sometimes with the assistance of social media. However, Soler and Marcé (2018) brought attention to the fact that traditional and social media have different ways of presenting the facts and framing the discussions. Gun control coverage and conversation spike following mass shootings, and most recently the "issue-attention cycle" of traditional media in regard to mass shootings like the Sandy Hook massacre has become longer. Traditional media moves beyond the specific incident and establish broader discussions on factors related to the tragedy. For instance, following the Sandy Hook massacre, traditional media instigated discussions on gun laws, surpassing the coverage of the disaster. In connection to social media, it mostly presents relevant facts from the perspectives of witnesses to the crime. This is followed by Tweets or comments on factors surrounding the event (Soler and Marcé, 2018). In a Twitter survey that was conducted four months following the Sandy Hook tragedy, it was discovered that sentiments on the victims and perpetrator were highest following the shooting, which suggested a connection between social media coverage of the incident and the ensuing public sentiment (Murray, 2017).

Although there have been only three mass shootings in the name of extremism and radical Islam since 2014. Moreover, traditional media rarely discuss race and religion when

similar crimes are committed by white shooters, where either a narrative of mental illness or lone shooter are promoted. For instance, the New York Times described the Isla Vista shooter, who attacked and killed six individuals close to UC Santa Barbara campus, as a boy with puzzling and deep psychological issues. The Charleston, SC church shooter who murdered nine parishioners was reported by the same outlet as a racist soul. Also, the New York Times' description of the Orlando PULSE nightclub shooter was 'always mad and agitated' (Jashinsky, Magnusson, Hanson, & Barnes, 2017). with 'occasional flashes of interest in radical Islam', but does not state anything in connection with mental illness. This instance is mostly repeated in cases of Muslim perpetrators, demonstrating the tendency of traditional media to portray Muslim shooters as related to extremist movements while treating white shooters as young men that are troubled and often acting alone. The same idea is assumed by social media users who make racist comments and believe that most, if not all of the Muslim community, are dangerous.

Furthermore, Bonanno and Levenson (2014) confirmed that traditional media tends to link Muslim shooters with terrorism, even though 93% of all acts of terrorism are committed by non-Muslims. To illustrate, traditional news outlets like the Fox News, CNN, and the International Business Times speculated that the shooter at Cascade Mall, in Burlington, WA had links with ISIS, even when there was no proof of terrorist group relations, and before the FBI investigated his Turkish background. In combating these speculations and to moderate public fear, Muslims in America are faced with social pressure to condemn acts perpetrated by Muslims.

Comparatively, however, such an expectation is not placed on white Americans when whites commit similar crimes (Bonanno & Levenson, 2014). This was evident when hours following the

shooting in San Bernardino, the American-Islamic Relations Council gathered with the Muslim leaders of Los Angeles to release a statement, demonstrating the community's concern with the anti-Muslim sentiments.

On the other hand, social media only provides first-hand information regarding such incidents and does not usually speculate on the ideologies of the perpetrators. However, after the traditional media makes its speculations, social media users begin to discuss the unconfirmed racist assumptions. In this respect, the social media mass shooting link clearly manifests.

Psychological Effects of Social Media

Many studies have reported the link between the use of social media and the development of compulsive behavior. According to van den Eijnden, Lemmens, and Valkenburg (2016), who did a research on social media disorder scale, social media users tend to feel restless whenever they cannot access their messages from the social media applications. In other cases, some users experience phantom vibration syndrome (PVS). These two foregoing illustrations of social media disorder may not be viewed as something intense, but an addicted person's perception regarding his cell phone's vibration can be critical because obsession manifested through frequent monitoring of social media messages can exhibit anxiety (Bashir & Bhat, 2017).

In the present society, use of social media radically soared, and addicts find it difficult to refrain from social media usage. Likes and comments act as positive reinforcement factors, making it easier to get hooked. It is evident that some people compare their lives with those of others in an effort to be viewed as successful individuals. Naslund, Aschbrenner, Marsch and Bartels (2016) reported that the use of free social networking services can be beneficial since

people read productive content and remain connected with their loved ones, but at the expense of their privacy and discretion.

Kuss (2017) explained that anxiety is a significant mental health problem associated with social media users. People disagree over comments and likes of their updates and uploaded content. Thus, it is difficult for any person in the present era to be immune in the social media context. The longer the time one spends on social media, the higher the chances he/she has on becoming depressed (Lin et al., 2016). Bashir and Bhat (2017) stressed that usage of social networking services like Twitter and Facebook are not helpful as they cause students to be more stressed and less focused. The authors continued to explore the positive and negative effects of social media on users' mental health and they noted that it could be beneficial in enhancing communication, socialization, access to health information and learning opportunities. The negative aspects realized include depression, stress, emotion suppression, reduced intellectual ability, cyberbullying, fatigue, and online harassment.

Lin et al. (2016) cautioned that excessive use of social media leads to a devastating life that begins with anxiety and develops to depression. Additionally, the work of Naslund et al. (2016) revealed that time spent on social media and depression has a positive correlation. Major depression symptoms have been found among persons who spend much time online and use social networking sites to interact and broadcast their life.

Kuss (2017) reported that most students using social media are lonely and tend to find solace through social networking. Additionally, the use of social media is found to enhance psycho-social problems such as self-esteem and adjustment. Symptoms of severe depression

among teenagers are associated with more negative and less positive social interactions. Bashir and Bhat (2017) provided more insight when they disclosed that social media usage has more serious effects on the younger generation because mental health problems develop during the younger phase of individual development and the problem can be extensive as one grows up

The above literature indicates that social media is a basic agent that can lead to the development and exacerbation of mental health problems. Mental health and social relationships are vital components that protect an individual's mental health. The quantity and quality of social relationships affect mental health, physical health, and other health behaviors.

Reports of Mass Shootings

There is usually an intense media inquiry that accompanies cases of mass shootings (Murray, 2017). Murray (2017) illustrated the preceding sentence drawing the April 2007 Virginia Tech incident where a gunman invaded the campus and killed 32 individuals, where an intense media inquiry ensued. Schildkraut et al. (2018) also pointed out that all the major news channels visited the scene, creating a highly saturated media site. The situation is referred to as "parachute journalism" and in the case of Virginia; it included about 600 reporters with around five acres of trucks carrying satellites (Schildkraut et al., 2018). Cases of mass shooting are usually reported in a similar pattern. Jashinsky et al. (2017) presented another instance where 49 people were murdered in June 2015, when a lone man opened fire in a nightclub located in Orlando, Florida. The episode clearly illustrated the ritualistic mode of reporting accompanying such events: the shootings, the fading carnations, the questioning, all creating a ritual that is

being carved into the country's cultural narrative (Jashinsky et al., 2017). Simons and Morgan (2018) presented evidence depicting this type of reporting.

Simons and Morgan (2018) established that the coverage of a mass shooting reaches a peak at four days following the incident, and it slowly disappears within a month. Elsass, Schlidkraut, and Stafford (2014) elaborated on mass shooting coverage peak by presenting a case about how media houses framed the 2012 movie theatre shooting at Aurora, Colorado. They found that both local and national newspapers practically stopped the coverage of the incident about 18 days following the event. It was evident that even when media coverage is conducted responsibly, condemns perpetrators, and shuns away from salacious details, it still gives the mass killers the fame that they desire (Elsass et al., 2014). Consequently, mass media is regularly blamed for exaggerating the scenario by escalating death tolls. Incidentally, during the Orlando shooting, as more details of the incident emerged, people learned that the attacker stopped for a moment to check his Facebook for news regarding the episode. This incident prompted the question of whether the media is complicit in mass shootings (Elsass, Schlidkraut, & Stafford, 2014).

Suicide Contagion in Mass Shootings

Towers et al. (2015) hypothesized that contagion is present in high-profile, unpleasant incidents, including mass killings and shootings (with more than four people killed). Their quest to convincingly prove the theory led them to exploit a contagion model illustrated mathematically. Previously, the model had been used in testing contagiousness of the spread in stock market decisions, burglaries, outbreaks of infectious diseases, viral YouTube videos, and

for the first time, to test media “contagiousness” of active shooters (Koslow et al., 2014). Towers and his associates used the contagion model based on recent sets of data relating to the incidents that happened in the US. They ventured to address how a mass murder or school shooting may increase the chances of a comparable incident in the future, by supposing the presence of exponential contagiousness decay after a fateful event. Towers et al. (2015) incorporated data consisting of 232 events, whereas 176 events involved the use of firearms. Out of the entire 232 incidents, they discovered three visible errors, involving a date that is incorrectly transcribed by one day.

Towers et al. (2015) corrected the aforementioned erroneous date for their analysis; hence, validating the strength of their theory from available data. The researchers proved their theory as they provided significant substantiation of contagion in shootings around schools. Based on their analysis, an incident is contagious within an average of 13 days. Results of the study also revealed to incite approximately 0.22 new incidents. Additionally, Towers et al. (2015) conjectured that the prevalence of state laws on the ownership of firearms is substantially linked with incidences of school shootings, mass killings with firearms, and mass shootings.

Another important aspect emphasized by in Towers et al. (2015) is that there is no spatial contagion, implying that a regional contagion lacked significance. In other words, the study findings led to a train of thought emphasizing that shooting events occur nationally and are not confined within a defined area. They also posited from their analysis of the data and events that mainstream media and social media combine to give out singled sensational details, eventually resulting in contagion. Additionally, they argued that mass shootings are orchestrated by similar

events that happened within the past. They also highlighted that news regarding shootings is spread through both mass media and social media.

In a related inquiry, Garcia-Bernardo et al. (2015) tested the Towers et al. theory using a different technique. Garcia-Bernardo and his partners hypothesized that if attacks involving mass shootings are evenly distributed and unrelated, there is likely to be an equivalent possibility of an impending attack in the near future, near or far from a different attack, and later than a different attack. They evaluated whether there are spatial and temporal relationships between attacks based on analysis of large social media data.

The Garcia-Bernardo et al. (2015) study also theorized that there was a positive connection between attack size and age. They argued that teenagers between the ages of 12 and 18 associated with events of small size and have a low rate of suicide. Moreover, attackers between the age of 18 and 38 display high rates of suicide. They insisted that the rates of suicide do not correlate well with the size of the attacks, except attacks that do not have many victims. Garcia-Bernardo et al. (2015) also indicated that a small and aggressive segment of the community deal with the rest of the shooters/attackers older than 38, fueled by the informational product of the same society. From separate studies, Towers et al. (2015) and Garcia-Bernardo et al. (2015) both independently claimed that there is mass and social media contagion in mass shooting incidents. The same conclusion was also reflected in Vincent (2016), regardless of the mathematical approach used. As described further in the literature review, the work by Garcia-Bernardo et al. (2015) provided further information related to social media being a tool that can

influence mass shootings. This connection is believed to be important in law enforcement efforts to detect and stop the transgression.

The Media Contagion Effect

The question of whether exposure to violent media influences the levels of aggression is a highly debated question among researchers (Bonus, Peebles, & Riddle, 2015). Sociologist David Phillips was the first academician to try and identify whether the depictions of aggression in mass media increased the rate of homicides (Phillips, 1986). Phillips (1986) identified a noteworthy influence of media on suicide after a hyper-attention to suicide cases involving celebrities. Thus, it was logical for him to examine the effect of homicide. This phenomenon was then referred to as “media contagion,” based on the cultural contagion theory. Media contagion implies that all mass shooting reports have an effect on potential shooters, creating an idea that their criminal deeds will be rewarded by fame (Phillips, 1986).

Green, Horel, and Papachristos (2017) explained that critics disregarded the evidence presented by Phillip because it seemed correlational, including his data on suicide contagion. However, Phillip’s research was further studied and replicated by various researchers. One possible limitation of Phillip’s work could be that instead of analyzing homicide reports, he investigated the effects of broadcast reports. It was not until the late nineties when Cantor and his associates discussed homicides and the media contagion effect and considered the relationship as a serious theoretical possibility (Green et al., 2017). The authors also noted that an analysis of all forms of homicide for media contagion may not yield a correlation effect. Instead, the contagion

could most likely apply to mass murders only, and rarely on individual cases of homicide (Green et al., 2017).

Another revelation from literature was that only four out of seven perpetrators openly claimed that fame was their primary motive. According to Meindl and Ivy (2017) and Nacos (2016), the media contagion effect is fundamentally the same for children from both high and low socioeconomic status (SES). On average, low-SES children tend to spend more time on television, and hence, get exposed to violence on TV than children from high-SES, but the link between viewing TV and SES does not affect the relationship between youths perpetrating aggression and viewing media violence. Nonetheless, the high content of media violence observed by low-SES children is a potential risk factor for adulthood violence within their population (Meindl & Ivy, 2017; Nacos, 2016).

Most recent researchers agree that exposure to violence in social media increases the risk for aggressive behavior (Miranda, Young, & Yetgin, 2016; Sutherland, 2016). A possible explanation is that the impact of reports from social media news is not limited to the information value of the reports (Bonus, Peebles, & Riddle, 2015). Accordingly, Bonus et al. (2015) hypothesized that the violent nature of social media reports may manipulate the level of aggression among potential social media users. Meanwhile, Reuter & Kaufhold (2018) evaluated the association between violent social media and aggression levels in regard to public health matters. Their efforts culminated towards an understanding of how and why violent social media tends to increase aggression levels and the imperative of curtailing violent social media content.

On the whole, Bonus et al. (2015) and Reuter and Kaufhold (2018) provided good insight pertaining to the relationship of social media violence and aggression levels. However, they should apply theories or models explaining this correlation to the general effects of observing violence among family, peers, and other community members. Both groups of researchers affirmed that observation of violence increases the risk for more violence. Based on their studies, different progressions cause content effects and these processes are different from time-displacement effects that social media engagement is seen to have on teenagers. They also insisted that effects of time displacement explain the significance of the social media in replacing certain activities that teenagers engage in, which changes the risk for other behavior, such as replacing sports, music, etc. (Anisin, 2018; Holman, Garfin, & Silver, 2014; Houston et al., 2015; Palen & Hughes, 2018).

In a similar undertaking, Elsass et al. (2014) applied analytics from Google Trends to explore any correlation in Internet searches involving media coverage of mass homicide. They discovered that for every event that was represented on the graph, a school shooting had occurred earlier. During those times there were reports from the media that mentioned or provided a direct comparison to a more prominent or larger-scale shooting, further providing the high-profile perpetrators with the fame that they desperately desire. In their review of the network virtualization, it was revealed that every shooter mentioned the Columbine school shooting in the shooter-shared content (Elsass et al., 2014). Together, the aforementioned reports provided by the authors suggest that fame is constantly provided by mass media to the perpetrators of mass shootings, which motivated the copycat effect. In view of the evidence, the above-cited

researchers independently acknowledged that ethical journalistic practices should be encouraged and practiced by minimizing active shooter event coverage during the incident, immediately following the incident and later in the near future (Anisin, 2018, Elsass et al., 2014; Holman et al., 2014; Houston et al., 2015; Palen & Hughes, 2018). It is, therefore, very clear that a need for more ethical journalistic practices in the coverage of active shooting events is in order.

In a related work, Bushman and Huesmann (2013) expounded on violence in mass media and aggression noting that there is adequate empirical evidence supporting the theorized strife between aggression and violent mass media. The debate led to the development of three commonly supported hypotheses, rather than one distinct theory (Bushman & Huesmann, 2013). Bushman and Huesmann's (2013) study presented the first theory: small levels of aggression can be increased by exposure to violent mass media, particularly, social media. The second theory suggests that violent mass media exposure does/may increase minute levels of hostility in consumers; nonetheless, an increase in the level of aggression does not automatically increase violent behavior in all consumers. The second theory is supported by Jashinsky et al. (2017). The last theory, which received support from Flew (2017) posited that level of aggression in media consumers, can be increased by violent mass media. However, there is lack of empirical evidence supporting a correlational or causation relationship between violent behavior and increased aggression levels. In any case, the association between aggression and violent mass media cannot be ignored as a factor influencing mass shootings.

The media contagion effect in American society. America is a country where mass shootings often occur (Fox & DeLateur, 2014). Not only do frequency of mass shootings offer

superficial justification for individuals to own excessive number of firearms, but that firearms are also easily accessible in some states. The media has successfully ensured that the average American citizen lives in fear by making them question their safety wherever they go. It is evident in the news, TV shows, and movies. Fox and DeLateur (2014) highlighted the film *Bowling for Columbine*, produced in 2002, where Michael Moore pointed out that the American media continues to implant a negative idea into Americans, making them experience fear and constant paranoia. The American media impacts society by making the people believe that weapons are needed to keep them safe. Fox and DeLateur (2014) argued that violence portrayed in the media has conditioned the Americans to believe the danger in their country and this also causes communities to hold a negative perception of safety.

Fox and DeLateur (2014) also drew attention to TV shows like *Cops*, claiming that the show makes people think that they are in constant danger with the portrayal of violent neighborhood scenes. Moreover, Fox and DeLateur (2014) decried that the black community is portrayed as hostile and blames them for most of the shootings. The authors also emphasized that when one uses Google to search the faces of mass shooting perpetrators and then count the number of black people, one will realize that not all crimes are committed by black people. Meanwhile, nightly news conditions people to be obsessed with fear, and these people may more likely entertain thoughts that desire to kill people believed to threaten their safety (Fox & DeLateur, 2014). The foregoing concerns may be observed in many documentaries. As a consequence of exposure to such news and media, people tend to believe that they should protect themselves from evil minds, alongside a government that allows them to have access to all kinds

of guns. Walmart and K-Mart stores sell ammunition cheaply, at just about 17 cents. This is both outrageous and dangerous. As Fox and DeLateur (2014) explained, through the media, Americans are made to believe that carrying guns is a normal practice and killing can be justified as long as it is for self-defense.

Another team of researchers, Park, Holody, and Zhang (2012) tackled the issue of media publicity for mass shooters. It had been a common practice in both traditional and social media that mass shooting perpetrators are named in news media and their faces are also shown. In this regard, Park et al. (2012) argued that the publicity that is given to an attacker or perpetrator of mass murder negatively affects the young people by making them vulnerable to violence and dark identification with mass murderers in real life. Media publicity of mass shooters cause the young audience not only to admire them but respect them and develop an interest in their agenda. Thus, it will be observed that the so-called copycat shooters are compelled to accomplish a higher target body count in different sensational ways.

In addition, the media is also accused of using provocative words that can cause unsettling thoughts and trigger a potential murder. Words like “school shooter” and “lone wolf” may seem cool to some young men who may be seeking fame. It gives them a conferral status because it singles them out and make them significant from other youth (Fox & DeLateur, 2014). It is, thus, evident that the coverage of mass shooting characteristics has significant implications for all audiences.

The way that the media frame stories heavily influences public perception about the news. McGinty et al. (2014) observed the coverage of three mass shootings and discovered that

the coverage appeared to convey that the mentally ill were dangerous and more harmful than guns. Park et al. (2012) argued that the coverage of mass shootings and perpetrators lead to stereotypes and misinformation. They highlighted that immediately after coverage of mass shootings, various media houses shifted their focus to individuals, society, and importance of community. However, over time, they started covering the individual and societal levels. However, Holody and Daniel (2017) countered stating that the Aurora incident coverage was mainly focused on particular persons than the entire society.

By observing the similarities and differences between national and local news coverage, some authors highlight that local media focus more on victims, whereas national media focus on the perpetrators. Along this narrative, Schildkraut and Muschert (2014) explained how mass media framed the Sandy Hook shooting coverage in 2012 framing reshaped the typical reporting narrative. Such coverage was defined in Schildkraut and Muschert (2014) as one that is dominated by the gun control debate with less emphasis on the people affected.

Another offshoot of an intense coverage of the shootings is the initiation of cynicism that leads to contagion. In a qualitative analysis of mass shootings, Murray (2017) illustrated that the need for attention and infamy are the main psychological identities of the perpetrators and that their writings and belongings reflect past incidents. She also argued that the media contagion effect was resurrected by sociology, media, and technology scholar Zeynep Tufekci, who presented compelling pieces of evidence regarding the influence of media as early as 2012 and 2015 in the local press. However, it was never approached with the importance it deserved.

Wolfsfeld et al. (2013) provided a detailed illustration on the issue of media portrayal and public reaction. They argued that people's reaction to news can be better viewed from an interactionist perspective. This perspective develops ways to explore the reasons that explain why people from a particular society behave differently, and how society can influence choices made by individuals. The main focus of the perspective is how a person can maintain the impression of himself as he relates to various individuals being lowered into committing mass murder or to formal language being spoken through social media in regard to mass murders. Such persons wanted to act cool tough and to stand out even if it involves committing a crime. Not only are mass murders being influenced by language, but also by other forms of media in the broadcasting world, that influence people to protect themselves believing that their lives are at stake. Thus, media portrayal tends to target certain people and impact the way they think, making them find the need to defend themselves when faced with "threat" (Wolfsfeld, et al., 2013).

A Comparison Between the United States and Other Countries in Regard to Gun Ownership and Gun Violence

The United States and Canada. Koslow et al. (2014) offered their view of US and Canada, emphasizing that the two countries have significant cultural differences that shape their contrasting views on gun ownership and gun violence. Despite the fact that citizens of both countries play the same video games and watch the same movies, the impact of media is seen to be completely different. The US leads other world nations in mass shootings (Koslow et al., 2014). The authors added that between 2000 to 2014, over 120 mass shootings have befallen the

US, whereas Canada experienced only 3 mass shootings. Compared to the US, Canada has a significantly lower rate of mass murders and shootings. This is believed to be a result of Canada being open to different ethnic groups and races as opposed to the United States, where other races and ethnic groups are targeted by vigilantes, and the scenes broadcasted in the media. Some authors blamed the escalation of violence in America on horror movies and video games, and the country's history in regard to violence experienced in the past. In contrast, people in Canada not only have a more relaxed mindset, and do not suspect their neighbors even though they get exposed to the same violence in the media through movies and video games (Koslow et al., 2014).

The United States and Japan. Popular video games in Japan have no impact on aggression and gun violence. Japan was second lowest ranked in terms of the rate of homicides by guns and other firearms, while the US was the highest-ranked country. Adding on to that, the US has engaged in many wars, but so has many other developed nations, but the latter have a low rates of gun violence. Besides, more people in the US have been murdered with guns than all the wars the country has fought combined. The common belief among people that the ownership of guns and violence in media are the only causes of mass murders is erroneous. It is apparent that people who own guns and watch video games from other countries managed not to kill each other. However, it is conspicuous that the media shared is different and certainly influences the behavior of viewers (Koslow et al., 2014). In addition, documentaries and statistics stress that mentality is a major factor, and that mass shootings are not caused by violent media and access to guns, but psychological factors.

Reasons for the differences. The increased number of mass shootings in America is a result of paranoia and constant fear due to the negativity portrayed in the news that convinces people that their surroundings are unsafe (Loke & Grimm, 2017). Loke and Grimm (2017) argued that the media and culture in America are also instrumental in the escalation of mass shootings because specific groups are portrayed negatively. Whether Americans admit it or not, they live in a xenophobic nation and minorities are regularly singled out and portrayed by the media as a threat to the community, creating the need for guns. The delivery of information in America greatly impacts the behavior of people because language makes teens more likely to commit violence in form of mass murder, as it is seen to be cool. The American media and culture greatly influence the beliefs and actions of the American population, which explains why the country leads the world in terms of mass shooting statistics (Loke & Grimm, 2017).

The Copycat Effect

The copycat effect is a subdivision of the media contagion effect and it refers to a potential killer's imitation of a previous mass murder incident (Langman, 2018). Langman (2018) explained that the copycat effect was noted more often compared to the media contagion effect. However, Langman (2018) underscored that there was a long duration before the work of Cantor was validated, despite the report by Fein and Vossekuil on potential assassins or mass killers, who discovered that 38% of mass killers were inspired by previous killings. Another report by Chuck et al. (2018) on the copycat effect highlighted that this effect is the common cause of school shootings. The foregoing sentiments were supported by Annas and Knoll (2015),

who insisted that most of the potential mass shooters have a desire to copy the crimes of their previous heroes.

Another perspective was provided by Simons and Morgan (2018) in regard to a possible copycat effect on mass shooters. They investigated mass shooters who committed crimes between 1995 and 1999, covering the most recent incidents in the study timeline, and again the researcher provided evidence of the media contagion effect, as observed by mass shootings that were regionally clustered. Clustered incidents were a primary consideration in the threat assessment carried out in a study of adolescent and adult mass shooters. Other researchers also noted that the copycat effect is a constant phenomenon in many mass shootings. Thus, there was a call for detailed and critical unification into this effect centered on distress, desire and entitlement for recognition. This impulse sometimes overshadows the causal suspects of mass shootings. However, this argument is speculative unless the media contagion effect can be tested with media coverage and following mass shooter events (Eveland, 2013; Follman, 2015; Green, Horel & Papachristos, 2017; Dunn et al., 2015).

Meanwhile, Young (2014) suggested that school shooters mimic the behavior of past killers based on the stories received from media outlets. In his study on mass shootings and the contagion effect, it was established that mass shootings take place in concise clusters and previous mass shootings pave the way for other violent acts. Additionally, the risk of subsequent acts of violence is on the rise, especially 14 days after a mass shooting that receives both international and nationwide news coverage (Young 2014).

Wolfsfeld et al. (2013) contributed to the discussion on the copycat effect by indicating that the copycat model was facilitated by repeated exposure to criminal activities through the media, which provides knowledge of the crime and possibly motivation. One major motive behind the copycat effect is notoriety. According to Wolfsfeld et al. (2013), perpetrators of mass violence inhabit a publicity obsessed culture similar to every other individual. The act of murder is slowly becoming a household name.

In response to the question of whether a copycat effect is a major factor leading to school shootings, many factors should be put into consideration. After accessing the network centrality scores and running the network analysis, it was established that there was a Werther effect, also known as the copycat effect in school shootings. Also, network analysis of shooter manifestos revealed that school shooters were more focused and concerned with their idols who took part in previous killings and shootings. By depending on the centrality and visualization rankings, it was concluded that the idolization phenomena are present. Even as it may be seen as a copycat effect, it does not relate to the traditional Werther effect encouraged by the media, particularly in the case of suicides. In 2004, Coleman discussed this idolization effect in cases of school shootings and argued that the way mass media makes school shooters famous is a critical social problem (Wolfsfeld et al., 2013).

Different Views Explaining Mass Shootings

Contrasting the social learning theory that supports media contagion and the copycat effect, other researchers presented a different theory to explain mass shootings. One such theory was created by Sutherland (1947, as cited in Annas & Knoll, 2015). It is also known as the

differential association theory. The theory asserts that felonious deeds are adapted during the adolescent stage from persons who interact with the individual, such as peers, family, and friends. If the attitudes surrounding an individual support violence, the person is automatically likely to develop tendencies of pro-violence. Besides, such situations may make it possible for people to develop criminal skills through associations, such as learning how to use a gun (Annas & Knoll, 2015).

Meanwhile, another theory known as the differential reinforcement theory was developed by Akers (2017), which suggests that violent behavior does not develop from close intimate groups, but from engaging with people who believe in reinforcing valence as a way of punishing law-abiding behavior. Dylan Kleboid and Erick Harris, the Columbine killers, demonstrate this theory in action. Kleboid and Harris were social pariahs who continually turned to the group of outcasts referred to as “The Trench Coat Mafia” (Akers, 2017). These individuals were annoyed with being bullied and put down in school and their community, so they bounced vengeance and valentine deals ideas back and forth. Their mafia group accepted the violent actions and they were tasked with the “privilege” of reinforcing their evil plans.

One common explanation for both mass shooting and regular homicides involves the aggression and frustration hypothesis. The aggression-first pro ablation is always a cause of violence and violence is aided by vengeance. Therefore, if something interferes with a person's goal, such restriction tends to cause frustration leading to aggressive behavior that may escalate to violence. Moreover, when frustration is unexpected and severe, it usually leads to devastating consequences. The above researches provided strong empirical evidence supporting their

respective concepts in all murder incidents. However, the present cases and evidence analyzed are outdated and are not attuned with the current trends in mass media particularly, social media. Moreover, their respective approaches are yet to be empirically tested in totality with regards to incidents of mass shootings.

Theoretical Explanations for Short-Term Media Contagion Effect

Green, Horel, and Papachristos (2017) suggested that the media contagion effects are attributable to three factors, including priming, excitation, and the immediate behavior imitation processes. Priming is a process that facilitates the instigation of spreading in the neural network of a brain from the locus that represents external stimulus and incites a different brain node indicating a behavior. The stimulus is intrinsically connected to a certain cognition, such as a scene of a mass murder, being innately linked to aggression. It can also be something inherently neutral – e.g. an ethnic group like African Americans that is sometimes associated with certain behaviors or beliefs involving welfare and other social issues. The concepts are primed, and they increase the likelihood of behaviors linked to them. When social media violence primes concepts that are aggressive, violence is more likely to occur (Green et al., 2017).

In some cases, social media presentations provoke the aggressive behaviors of observers which become likely for two reasons: general arousal and excitation transfer. First, a successive stimulus fueling a sensation may be seen to be severe because some emotional responses inspired by social media are misattributed as a result of the transferal of aggravation. For instance, as soon as there is an exciting presentation from the media, the transfer of excitation could result in severe aggressive responses. Then again, the increased arousal that was stimulated by the

presentation may reach a pick wherein inhibition or such inappropriate responses can be diminished, and other dominant responses can be displayed in certain solutions to problems, e.g., instrumental aggression that is direct (Gillin et al., 2017).

Imitation is viewed as a critical case of a long-term process in observational learning (Gillin et al., 2017). Recently, there has been evidence that primates and humans have the tendency to imitate what they see in their surroundings. An observation of common behaviors around people increases the probability of behaving as observed. This is more observed when children get exposed to violent behavior which result in imitation (Gillin et al., 2017).

Theoretical Explanations for Long-Term Media Contagion Effect

In contrast, Green et al. (2017) argued that long-term effects of media contagion were the results of two factors that include: desensitization and activation of emotional processes, and lasting observational learning of behaviors and cognitions. The social cognitive model illustrates that observational learning can influence both cognition and behavior both in the short term and the long term. Social scripts obtained by observing peers, family, community and the mass media develop to be more complex, automatic, and abstracted in the invocation phase. During this period, the social-cognitive schema of children regarding the world that surrounds them is more elaborated. For instance, the observation of violent acts presents bias on the world schemas of children toward the attribution of hostility to the action of others. In turn, the attributions increase in the prospects of aggressiveness. As children continue to mature, the normative beliefs about proper social behaviors crystallize and become filters that limit misconduct or

inappropriate behaviors. These beliefs are partly influenced by their observation of people's behavior around them, including those in the mass media (Green et al., 2017).

The long-term socialization effects of mass media are facilitated the way video games and mass media affect people's emotions. Through conditioning, emotions, such as anger, fear, or general arousal are linked by inserting stimuli after a few exposures. The emotions can influence a person's behavior in a particular social setting away from any source of media through the generalization of stimulus. Children may then react with fear or anger in a different situation similar to that observed in the media. Moreover, continuous exposure to stimulating video games or media can cause desensitization or habituation of natural emotional reactions (Elsass, Schildkraut & Stafford, 2014, 2016).

Elsass et al. (2014) further stated that certain behaviors observed by the child might seem unusual at first but later become normative after the viewer views the content many times. After a series of exposures, emotions that are automatically experienced by children after watching a violent scene from the media reduces in strength. For instance, individuals have a natural negative response to observing violence, gore, or blood – discomfort, increased heart rates, and perspiration – often follow such exposure. Nonetheless, repeated exposure to violent acts usually habituates this destructive response, and the kid gets easily desensitized. Such a child can practically plan violent activities.

Thus, any form of proactive aggression becomes a likely event. Researchers who studied observational learning highlight that normative beliefs, world schemas, and scripts regarding behaviors are acquired from reflections, without the awareness of viewers together with

laborious cognition. Accordingly, one major fact regarding media and socialization is that the process happens without viewers realizing what is really taking place (Elsass et al., 2014).

The Moderators of Short-Term and Long-Term Media Effects

It is evident that not all persons who observe violence in the media are affected equally by what is being broadcasted. According to Reuter and Kaufhold (2018), the effects of violence from the media on children can be moderated by certain situational characteristics of presentation, e.g. how it attracts attention, how it sustains attention, viewer characteristics, including an individual's aggressive predisposition, as well as the human and physical perspective from which the viewers observe vicious acts. These aspects interrelate with each other. For instance, how real violence seems to a viewer will depend on the content and form of the scene, the viewer's experience, one's propensity to accept what is portrayed, and the other viewers present when the scene is being observed (Reuter & Kaufhold, 2018; Simplican et al., 2015; Schildkraut et al., 2018).

Characteristics of the Media Content

Content that fails to attract minimum attention will automatically have little significance on a viewer. Despite the fact that effects take place through peripheral processing in the absence of cognitive resources to the processing of materials distinctly, they can barely occur without a significant level of attention (Simplican et al., 2015). Consequently, content and form factors that entice the attention of children are highly imperative in the determination of the importance of the effects that are bared by the presentations. Factors facilitating viewer's attention appear to include bright colours, loud noises, and rapid movements. Mass media inherently includes this

form elements with cognitive resource demand whereas other media components vary on this dimension (Reuter & Kaufhold, 2018). Even when a graphic scene grabs a viewers attention, not all violence portrayals pose similar risk (Simplican et al., 2015). A number of studies – mainly laboratory research on young adults and children – emphasize that the presentation of aggression or violence changes its meaning for the viewers and moderates their cognitive, emotional and behavioral reactions (Reuter & Kaufhold, 2018; Simplican et al., 2015).

Characteristics of Viewers

Many characteristics of viewers are hypothesized to moderate how they react to and interpret violent media. For instance, the developmental theory indicates that children with less crystallized social schemas, scripts, and beliefs are sensitive to media influence. Another theory known as the observational learning theory indicates that the age and gender of viewers influence how they identify with hostile characters depicted in the media, which may influence enactment and learning of observed aggression. A low intellectual competence exacerbates exposure effects when the plots presented are complicated and fairly subtle. Increased levels of aggression results in high susceptibility to the effects of violence observed from the media by interfering with the perception of violent acts observed (Simplican et al., 2015).

Credibility Judgments and Social Media

Koslow et al., (2014) hypothesized that risk raises a significant factor in the adoption of social media. Social media is gaining incredible prominence as a vital source of evidence in risk and disaster management even though the accuracy and credibility of the information shared are often unclear. Hence, it is imperative to learn and understand how individuals can evaluate the

information received from social media websites, especially in regard to acts of violence, such as mass murder. Source credibility is defined as the judgments that a perceiver makes concerning a communicator's believability (Koslow et al., 2014). Flew (2017) added that even though there is a prolonged debate regarding the factor structure defining source credibility, one common factor structure includes three source credibility dimensions: expertise, goodwill, and trustworthiness (Koslow, Ruiz & Nemeroff, 2014; Flew, 2017).

Additionally, Flew (2017) underscored that source credibility is becoming a valuable variable that can examine individuals using social media, particularly in assessing risks and crisis. Abundant information from different sources of media makes gatekeeping move from content producers and onto content consumers. Gatekeeping is a process where the creators of content decide the kind of stories to be covered and reported, and thus, decide the type of information to be released to the general consumers (Flew, 2017). Many individuals are now gatekeepers, including reporters, editors, advertisers, and media owners. In the process of creating and disseminating information, the public assumes that these gatekeepers check the veracity of information and are important in regard to safeguarding information credibility. The increasing growth and development of media means that information users are becoming far less obliged through the kind of news that passes through gatekeepers and those that can bypass gatekeepers and directly reach the consumers. Many of which reports are created and presented by consumers themselves (Koslow et al., 2014). Since the information provided in different channels can lack the professionalism of gatekeeping that checks the credibility of content, and thus, lacking the traditional market that determines source credibility, viewers become more

responsible when making decisions regarding the credibility of online content (Koslow et al., 2014).

Thus, in the different forms of media, the gates are allocated with both providers and consumers of information, who create their own gatekeeping rules. These changes present a shift from the traditional gatekeeping to what is now known as gate watching (Koslow et al., 2014). The watchers do not have control over the gates through which news information passes. However, they keep watching the gates and deliver the information through the gates onto other persons who make their own decision regarding the usefulness and relevance of the subject (Flew, 2017). Gate watchers can, therefore, endorse or refuse information by creating stories or sources known in the new media environment. As opposed to publishing new information, gate watchers publicize other people's information and add content to it. Such activities are seen in environments, such as Twitter and Facebook when users publish other users' links and comment on them: generally, this is a social media hallmark; content co-creation.

The gate watching notion was emphasized in Holman et al. (2014), who argued that the universe of digital media presents challenges in two ways: overload of entertainment, information, and other factors that need much organizing, and the lack of uniformity assurance in terms of content quality, necessitating the need to monitor the credibility of users. Credibility is a perception and it cannot bear quality inherent in the source of a channel. Therefore, numerous factors can impact the credibility of materials available online. The MAIN model is a useful model that tends to explain the credibility judgement process in online settings and presents an

important framework that explains ways so that those consumers can enact the gatekeeping process with such information (Gillin et al., 2017; Green et al., 2017; Holman, et al., 2014).

The Significance of Big Media Data

Big media data, including online media platforms, such as social media, aggregators, and numerous Internet searches continue to yield major breakthroughs across academic fields, like science. In public health, particularly surveillance of diseases, various researches presented new sources that can accurately forecast and track conditions, such as influenza, by investigating data from Facebook, Twitter, Wikipedia, specialist apps, and other web searches. These sources rapidly respond to infectious diseases, such as Zika, Ebola and dengue fever. Evidence from big media have provided insights into the behavioral aspects in the field of public health, in terms of awareness programs, spontaneous/organic events, and public responses to communication campaigns. Online resources also help in the fight against opioid epidemic as it also facilitates the study of emerging drugs and drug prevalence measure. Such efforts are valuable as they can also provide educative insight on social phenomena, such as gun violence and mass massacre. Currently, they are also influential in providing insight on mental health issues: measuring the prevalence of mental illnesses and psychological conditions; discovering and analyzing patterns of mental illness, depression, schizophrenia and posttraumatic stress disorder; and predicting suicidal ideation and understanding eating disorders (Bonanno & Levenson, 2014).

The fact that big media data is significantly important in providing insights into a wide range of public health issues provides hope that it can be applied to prevent and control current disasters, such as gun violence. One significant benefit associated with big media databases is the

fact that they are free, easily accessible, and can be accessed on time. For instance, over 70 million tweets in relation to gun violence can be accessed annually. These tweets assist researchers who investigate the spectrum of gun-related violence and attitudes leading to such violence. Anecdotally, these media information is already influencing the people's understanding of mass gun violence, as reports on gun shootings depend on critical details gleaned from first responders and eyewitnesses who may share their experience through social media. An example of this is the live broadcast of the Minneapolis police shooting. Such data could serve as a silver bullet that interjects science into the prevention of gun violence, by providing law enforcement agents the data needed to carry out rigorous investigations (Chuck et al., 2018).

Many private organizations develop strategies that tend to aggregate, generate, and disseminate all forms of data involving gun violence to promote current research. For instance, better prepared by the federal government on the occurrence of gun massacres is limited and only provided after a certain period depending on police investigations. The nonpartisan and non-profit gun violence archive aggregates various incidents of gun violence from reports, including both non-fatal and homicide cases, and makes the data public in real time. Nonetheless, scientist studying big media data can effectively go beyond the counting of incidents and attempt to respond to more detailed matters. For example, the traditional news usually covers mass shootings routinely and these contemporaneous recording of information include additional details regarding circumstances of the incident, such as weapons used, time of the killing, the name of the shooter, prior criminal history and other details (Chuck et al., 2018).

News articles can also be processed to incorporate details provided by social media and process such information to reveal proper details that go overboard and are beyond the narrow facts. Understanding the framing of news is critical and aids the understanding of how the public relates to issues of gun safety. For example, an initiative provided by Everytown for Gun Safety maintains information on gun-related accidents affecting children. It highlighted that data from the federal government vastly underestimates the frequency of such incidents. The database also shows that the majority of cases are preventable as long as gun safety measures are taken into consideration by all gun owners (Bonanno & Levenson, 2014; Bushman & Huesmann, 2013; Campbell, 2015; Chuck et al., 2018).

Social Media as an Instrument for Early Detection and Deterrence of Mass Shooters

Researchers suggested that in regard to the impact that social media have on mass murder, situations involved were presented by possible danger. Generally, when cases of uncertainty symbolize danger, individuals begin to seek information and they engage in information hunting from different sources that will help them update their information constantly (Green et al., 2017). Historically, mass media have been a dominant source of information since it generally provides valuable, credible, and timely information. Nevertheless, together with other forms of mass media, new forms of media are increasingly becoming available.

A major and noteworthy channel that offers many opportunities for the need of information is the Internet (Green, Horel, & Papachristos, 2017). According to Green et al. (2017), many people depend on social media when seeking news regarding crises. Recently,

social media has been providing a potentially new platform for all kinds of people to get such information. Generally, social media presents a category of applications and channels that demonstrate collaboration in effective creation and distribution of news content. Media propagation working synergistically not only consists of the creation of content but also the discussion of content in a manner that improves such content collaboratively through the creation of shared understanding (Green et al., 2017). Hence, social media is built and supported by a framework of Web 2.0 - sites that harness collective intelligence.

Many forms of social media exist today (e. g., Flickr, Digg, YouTube, Facebook, and Twitter), but platforms that show great promise are Facebook and Twitter. Often, the most important sources of information come from eyewitnesses. In most cases, traditional news outlets glean for information from eyewitnesses before providing their content, and the majority of these eyewitnesses communicate through social media. Certain technological hitches in environments that are afflicted by crisis slow down official news reports. However, reports from social media get distributed swiftly. For instance, during the Haitian earthquake in January 2010, the role of social media was critical in disseminating information that saved hundreds of lives (Green et al., 2017).

Gold (2015) asserted that over the last decade, the United States has experienced devastating cases of school shootings, resulting in a stunned debate over the role of social media in detecting and averting the incidents. Green et al. (2017) concurred with this fact and indicated that majority of the attacks have been ‘lone wolf’ ones fueled by individual motivations, and beliefs. Hence, it would seem unlikely to incorporate actionable policy measures.

Garcia-Bernardo et al. (2015) assumed a system-wide view to analyze instances of school attacks and the feedback from Twitter after the incidents. The authors identified a divergence in trend where college attacks have been escalating for about 25 years, whereas those that took place in K-12 schools have been declining. The research discovered a similar trend in school shootouts and a correlation between the possibility of an attack in the coming days and Twitter chatter (Garcia-Bernardo et al., 2015). While elaborating the extent of causality, this relationship should be useful to help mitigate the intensity and frequency of future attacks.

The aforementioned research also illustrated that social media highly influences school shootings compared to other mass shootings. Nonetheless, social media can also predict the attacks. Garcia-Bernardo et al. (2015) noted that the ten days following a mass attack are communicable and can lead to another attack, particularly when there are 45 per million tweets on mass shootings. Moreover, and regrettably at that, the tweets regarding a shooting incident is connected to the number of victims in the subsequent devastating events. The results from Garcia-Bernardo and associated support the research of Towers et al. (2015), where the first 30 days following a school shooting are the most contagious and crucial days.

The findings of Johnston and Joy (2016) independently sustained the works of Towers et al. (2015) and Garcia-Bernardo et al. (2015). They were in agreement about how mass shootings can be significantly reduced, claiming that if social media and mass media enthusiasts decide not to share, retweet or reproduce the faces, names, statements of killers or their detailed histories, there could be a remarkable decline in school shootings and other mass shootings in less than two years. Thus, even if contagion model calculations are conventionally correct, as long as the

contagion is eliminated, there should be a substantive reduction in mass shootings (Johnston & Joy, 2016). Drawing from the above literature, the influence of social media on mass shootings had been well explained. However, there is still a gap in knowledge in regard to the influence of social media in influencing the actions of persons who carry out mass shootings, and how law enforcement agencies can make use of such information.

Recommended Intervention Strategies

Best Practices for Reporting Social Media News

News editors continue to contemplate how they can know what is real, what is considered relevant, how they can acquire such appropriate information, and how they can know where the information comes from. These individuals need to take a closer look at ethical issues and best practices in the field of journalism when dealing with major traumatic events, such as mass shootings (Graziano & Gauthier, 2018).

First, Schildkraut et al. (2018) insisted that it is important for news editors to consider the official accounts of publications rather than the accounts of individual reporters when contacting eyewitnesses. While there is no rule when it comes to contacting eyewitnesses, digital experts came to a consensus that reporters and editors could strongly err with the safety perspective when dealing with a possible eyewitness. In case an active shooting is taking place, a witness could easily be distracted by message barrages, or the perpetrator could be on high alert and monitors social media pages. Also, it is important for reporters to go easy on the social media accounts and only post a question or ask an issue once. This ensures that he/she respects the tenor and tone of the platform. It is advisable not to read a single tweet and decide. Reporters

should go through entire trades of feeds and try to determine the context (Schildkraut et al., 2018).

Reporters should only aim at carrying out interviews in person or by phone in order to obtain clearer and better information. Interviews that are mediated through text messages or via email often lack context and proper tone. There is the need to use shared documents when coordinating everyone involved in the process. It is not necessary to incorporate many people from a single organization reaching out to one person in one platform. It is also advisable to staff up experienced editors to run social media reports. As much as there should be someone that pushes out information, there should also be a person who keeps check of relevant information to be used. When engaging with a source, reporters should be honest about the profession, the organization, and how the information will be used. It is not advisable to deceive a source, either by omission or overtly (Reuter & Kaufhold, 2018).

One should clearly identify the purpose of the story and think about whether the aim is to profile people involved, identify a timeline, and determine who is accountable. If there is a change in the focus, sources should be called back and informed to ensure that the contribution is relevant and remains in context (Reuter & Kaufhold, 2018).

In addition, Reuter and Kaufhold (2018) indicated that reporters need to know how to fight off trolls. During the Florida shooting, a reporter from the Miami Herald was viciously attacked on Twitter when an unknown person created fake tweets that were purported to be from her. The tweets asked insensitive questions and people were disappointed with the reporter, not knowing that she was a victim. In fact, it is easy to create fake social media accounts and use

them to carry out illegal activities. Reporters need to be aware of such people and have their social media accounts regularly checked as they inform the public through their official accounts.

Simons and Morgan (2018) advised that when undertaking interviews, reporters need to be cautious while conversing with teenagers. Compared to adults' children are more vulnerable, and it is important to consider whether a child needs to be in the presence of an adult or an advocate during an interview. In the absence of an adult or advocate, the reporter can give the child his business card and ask him or her to share it at home (Simons & Morgan, 2018).

Additionally, one should ask the right questions and use respectful questions that are open-ended providing the respondent with an opportunity to express himself. The questions may include: What happened? What were you doing? What did you see? Who did you see? And did you recognize anyone? Also, questions that lead the witness or those that encourage speculation beyond what is known should be avoided (Simons & Morgan, 2018).

Creating mass media campaigns and lessons from antismoking campaigns. Mass media campaigns are known to positively impact society and help stop numerous negative behaviors, such as alcohol and tobacco use. Despite the fact that the mentioned behaviors differ from mass homicides, they have similarities in that nature is complex and is influenced by conditions promoting imitations. Furthermore, some perpetrators of mass homicides consider suicide as their partial motivation. Given these similarities, it is possible to create a significant campaign against mass shootings by adapting key features borrowed from other campaigns (Graziano & Gauthier, 2018). Effective prevention of suicide emphasizes that behavior can be preventable as the messages are tailored to specific viewers or audiences. Such messages do not

portray suicide as reasonable, unexplainable and as the effect of depression. Also, they do not present the act, and possibly highly significant for mass homicides, they provide signs of warning linked with such behavior and describe the steps to be taken in case one observes the signs. Moreover, the messages are developed to make certain that the undesired nature is not presented as a normal social behavior. For instance, a positive and effective campaign needs to refrain from stating that "many people engage in such undesired behavior" since what is evident in the message is that "many people engage in this behavior"(Graziano & Gauthier, 2018, p. 23), which has the potential to promote the copycat effect.

Some promotional components are not applicable in anti-suicide campaigns. However, they could be instrumental in campaigns against mass homicide – for example, relating the undesired behavior with negative outcomes. The concept has been effectively used in anti-smoking and anti-alcohol drives, such as CDC's Tips from Former Smokers campaign commonly referred to as TIPS (Dunn et al., 2015). One major component of this campaign is video clips that show numerous adverse health outcomes, including asthma, cancer, gum disease, and premature birth. Such videos are narrated by former smokers who, at one time, suffered one or a number of the negative health outcomes highlighted and concludes with a tip that is linked to a negative outcome (Dunn et al., 2015).

In the CDC's TIP ad, for instance, tips are provided to help people get ready for work or other activities following cancer. Images of smiling victims are presented and followed by videos of the victims donning wigs and false teeth after losing their hair and teeth. Such videos present people who move on after the devastating health incidents and closes with links to the CDC for

more advice on how to be healthy. Since 2012, TIPS had been instrumental in reducing and eliminating the health effects of excessive smoking and in increasing the spread of information on how smokers who desire to change can actually do so (Dunn, 2015).

Several qualities of mass campaigns make them successful. First, the producers associate the unwarranted behavior with persistent and specific adverse outcomes. As opposed to stating the fact that smoking increases the chances of early death, the motions describe persons who live with the effects of smoking. Anti-littering campaigns have used similar strategies effectively by associating the behavior with embarrassing or shameful outcomes. The major goals of such campaigns are not only to increase awareness or knowledge but also to identify the outcomes and directly link them to the consequences of the behavior that needs to be changed (Dunn et al. , 2015).

In developing an effective media campaign against mass shootings, the concerned agencies need to aim at disrupting the association between fame and the behavior by associating the undesirable behavior with poor outcomes instead of describing the perpetrator or mass murderer as dangerous, aggressive or ruthless (actions that may be appealing to potential shooters). For instance, when the news reports that a mass murderer got lucky through “suicide by cop” as it was indicated in the case of the Las Vegas shooter (CNN Library, 2018), it may convey the opinion that mass shooting can make one famous or that the act ‘cool’. The perpetrator was competent in implementing law and the response forces look like amateurs. Nevertheless, there is no need to speculate to an extent in which one provides a motive for the

crime. It could be presented as the actions of a coward or a situation where the murderer lost control (Loke & Grimm, 2017).

In addition, it is also wise to change the manner in which mass murderers are being perceived by the society by presenting negative traits of such persons. For example, almost all mass homicides are initiated by domestic disputes. If such information is intended to reach the public, it could be narrated as an instance where killers act immaturely and lack control over their behavior. Ultimately the goal of the campaign is to change the mindset of people by altering the way mass murderers and other killers are portrayed by the media. Instead of describing killers who are vicious and angry individuals who ended the lives of people while they also destroy a society and avoid incarceration, the killer could be presented as being impulsive and a person lacking meant to deal with his personal issues and ultimately engaged in a violent solution (Koslow et al., 2014; Kutler, 2015; Loke & Grimm, 2017; Meindl & Ivy, 2017).

Subverting the power of infamy and notoriety. Lankford and Madfis (2018) indicated that the FBI, Advanced Law Enforcement Rapid Response Training (ALERRT) and victims' families created an approach to determine how media houses can report mass murders. Of course, the approach is voluntary for media outlets, but it could be useful if it were adopted the way that the media ceased reporting suicides involving celebrities in the 90's when suicide analysts and media researches indicated that suicide was contagious. Graziano and Gauthier (2018) agreed with the above and added that the government, through the CDC, established researchers, the media, and suicidologists, who reviewed relevant studies on media contagion and provided their recommendations. The process they adopted can be used as a template to

create additional guidelines and recommendations to the media in an effort to prevent mass homicides (Graziano & Gauthier, 2018).

An examination of the rate of suicides in different areas after both the government and media acted on the above-cited recommendations discovered that the rate of suicides declined in countries with guidelines and increased in countries without the guidelines (Graziano & Gauthier, 2018). Additionally, the US recorded a definite decline in the rate of suicide in 1997, just a few years after CDC made its recommendations. Stack (2003) supported the “No Notoriety” and “Don’t Name Them” campaigns stating these would be useful in putting an end to the suicide menace (Graziano & Gauthier, 2018).

Along the same line, Palen and Hughes (2018) proclaimed that the campaigns suggest that once the perpetrators are either captured or dead, their likeness or names should not be disclosed by the press. Likenesses and names are used by law enforcement agencies in various cases, such as catching mass shooters, booking them, sending them to trial, profiling, tracking, and studying potential shooters. The public may consider such information interesting, but it is not useful to them nor does it contribute to any information that can help prevent or interview a future mass homicide; as illustrated in the previous chapters, it does the reverse. Scholars and researchers who develop sociological and psychological profiles of perpetrators of mass shootings need access to some information about the persons involved for them to do their jobs effectively. However, the FBI need such expertise and they should provide the records to any researcher that requests them, as long as the case is already concluded (Palen & Hughes, 2018).

Researchers also agreed that media sources can report on homicide trends to better inform the public. However, naming specific perpetrators does not add knowledge for the listener or viewer on the topic (Graziano & Gauthier, 2018; Kutler, 2015; Palen & Hughes, 2018). Another recommendation to media outlets was to avoid sharing writings, photos, family, school history, work details, profiles, likes and dislikes, or weapon preferences of perpetrators with the public, particularly given the fact that most potential killers could recognize similarities between themselves and past killers, hence getting the inspiration to commit crime (Graziano & Gauthier, 2018; Kutler, 2015; Palen & Hughes, 2018). Would-be killers can easily become motivated by the "fame" or "bravery" of their role models as depicted by the media, making them have a competitive desire that will help them seek to surpass the fatality counts of their idols. Kutler (2015) contributed to this aspect by volunteering information that the coverage of suicides is currently guided by a number of recommendations and reporting standards, but such standards do not guide the coverage and reporting of mass shooter events.

Other authors also suggested that there is a need to develop a unique set of standards that will guide the ethical reporting of mass shootings (Koslow et al., 2014; Kutler, 2015; Loke & Grimm, 2017; Meindl & Ivy, 2017). Based on their analysis, it was evident that school shooting perpetrators are gaining a type of fame that can make them be regarded as heroes. It is vital for all the concerned parties to realize the need for guidelines that instruct the coverage of such events without giving a frame or romanticizing the perpetrators.

Holman et al., (2014) confirmed that the "Don't Name Them" campaign insists that media should also dedicate enough amount of airtime on the name of victims, their histories,

likes and dislikes, preferences, and careers as they tend to spend on perpetrators. Besides, the media needs to dedicate time to highlight the brave efforts of persons who helped contain the situation and risked their lives to save others. Media can also follow up stories of grieving families and communities and how they are working on the rebuilding their lives despite their painful encounters, rather than concentrating on coverage of the murdering spree – in which media need to quit covering. Viewers need to relate more to the victims of mass homicide and less with the perpetrators (Holman et al., 2014).

However, Graziano and Gauthier (2018) argued that all violent crimes need to be given enough attention, same as other forms of suffering, and proportionately highlight the social costs. He also warned that journalists should be aware of the risks known as media-induced harm-copycat crimes. Nonetheless, the media seems to take no heed. A good example of irresponsible behavior in regard to the media can be seen through the work of Geoff Ziezulewicz who wrote an article titled “Can the Media Reduce Massacres?” in 2014 but resulted using the names of killers and describing their profiles throughout the article (Graziano & Gauthier, 2018). Benedict Carey and Erica Goode of the New York Times also published an article on media contagion and mass homicide and like Ziezulewicz, much of their material contained the names and profiles of previous shooters. The trend was also evident in a Washington Post article published in 2012, titled “Are mass shootings contagious? Some scientists who study how viruses spread say yes.” The post contained huge and numerous photos of past mass killers (Reuter & Kaufhold, 2018).

Reuter & Kaufhold (2018) argued that the details of perpetrators from law enforcement agencies should be delayed and only given to media outlets if completely necessary. Moreover,

law enforcement should demand social media platforms to remove content describing the identity of killers. Graziano and Gauthier (2018) added that the tone coverage of media needs to shift from graphic and lurid to somber. In the past, media have joined together to provide good content that insights democracy and social change, it can also come together this time to put an end to the media contagion.

Lessons Learned From Local Crimes and Strategies To Be Applied to Stop Mass Shootings

Even though the levels of mass shootings and other criminal incidents may be different, law enforcement agencies can learn how to avoid mass shootings by replicating the way they respond to other criminal activities and utilizing the lessons learnt from them. Murray (2017) and Nacos (2016) shared concerns about ways that the police department can use social media to get ahead of mass shootings and maintain safety in their communities. Below are some recommendations provided by researchers who also studied how police have managed to deal with other forms of crimes by using social media (Koslow et al., 2014; Kutler, 2015; Loke & Grimm, 2017; Meindl & Ivy, 2017;).

Meindl & Ivy (2017) emphasized that law enforcement agencies should actively be concerned with social media posts, and other forms of media communications to effectively develop intelligence that is actionable and can help prevent mass shooting and other forms of crime. Most officers passively connect to social media platforms with individuals and the community in an attempt to be included in the distribution of information and be more aware of discussions regarding criminal activities. Another perspective was provided by Loke and Grimm (2017) who indicated that police officers need to familiarize themselves with various community

groups who seem to have a commanding online presence, so that they can easily distinguish between credible information and rumors. It is also important for the police to strive to identify large and smaller groups that intend to carry out mass shootings by inciting young people. For instance, there are numerous dance groups in Milwaukee that organize dance competitions in local parks. Some violent organizations have infiltrated these peaceful dance crews and initiate unlawful plans through social media (Loke & Grimm, 2017).

Law enforcement agencies are also advised to use social media for outreach purposes (Koslow et al., 2014). The police need to be more aware of their environment and frequently communicate with the youth, as well as their parents and guardians. Many government agencies continue to successfully use social media to establish conversations with teens following criminal activities. For example, the police are known to constantly use social media to communicate with people following flash mobs. Soon after several flash mob incidents in Michigan, the police used social media to communicate to school groups, youths and assured parent groups that they will not tolerate any form of crime and mob violence (Koslow et al., 2014).

Meanwhile, Kutler (2015) suggests that getting the entire community involved is a critical aspect that enhances security. Flash mob incidents are not only a police issue, but they affect an entire community. In Philadelphia, many local disc jockeys have been instrumental in denouncing robberies and mob violence. Such an initiative can be helpful in avoiding mass shootings because the public is more receptive to messages delivered by celebrities and role models. Hence, the police should create a culture of working with celebrities, role models,

elected officials, community leaders, faith-based organizations, local representatives, and government agencies to address the problem of mass shootings (Kutler, 2015).

In fact, curfew hours have been useful under certain conditions and circumstances. An example is the Wisconsin State Fair case, where leader-imposed restrictions on admitting minors after 5 p.m. were implemented. In cities like Philadelphia, curfew laws have been effective since the 1950s, although they were not strict. Teenagers between the ages of 13 and 17 could stay out until midnight while those under the age of 12 were supposed to be indoors by 10 p.m. (Chuck et al., 2018). Following a flash mob incident, a temporary curfew was imposed by the Mayor in particular neighborhoods. Curfew hours help to control night activities following mass shootings, and hence, help to avoid subsequent shooting incidents. The curfew can be withdrawn days after investigations have taken place and arrests have been made (Chuck et al., 2018).

Police departments can improve communications with the community in areas that have experienced mass shootings and other forms of gun violence. This can be established by obtaining and providing information to businesses and community members through presentations, meetings, email communications, and social media interactions. The Minneapolis police established partnerships with local groups that included the use of radio channels for both private and police security officers. The radio system was useful in sharing information regarding flash mobs and other potential crimes (Holman et al., 2014).

Several law enforcement agencies realized that they needed to prevent gatherings that could likely lead to violence. The police officers have been speaking to event managers or venue organizers prior to the gatherings. In Minneapolis, gatherings and large parties are constantly

misrepresented a small gatherings and local venues, and in most cases, organizers failed to provide enough security for the event. The police can monitor social media activities and obtain details of such events to enable them to provide adequate security and avoid cases of mass shooting (Dunn et al., 2015).

It is also important for law enforcement agencies to make use of other intelligence resources. Officers operating in schools can provide good information in connection with activities of the youth. Such officers should be trained to understand how to deal with mass shootings and how they can best alert other law enforcement organs when they sense potential danger. Debriefing arrestees who are first time criminal offenders, can enable the police to receive adequate information that can help identify radical groups that poison the minds of the youth.

Graziano and Gauthier (2018) reported that in urban areas, people intending to commit crime usually use mass transportation to travel to reach their destination. When the police get information regarding a potential crime, they may successfully prevent people from traveling to the site. For instance, in New York and Chicago, the police discovered that many teens used to jump subway turnstiles on their way to flash mob events. Statutes on fare evasion were implemented to prevent more people from accessing the locations. Locations involving mass shootings needed to be secured by the police avoid secondary incidents that may be waiting to happen (Graziano & Gauthier, 2018).

Law enforcement agencies need to have their own pre-established social media channels of communication. In Vancouver, the police had effectively established back distance in social

media and were actively working with the community by communicating vital information and engaging through community discussions. MPS had an official twitter page, but it was not active since they were only using it to make formal announcements. They had no informal means of communication that could help them be in touch with the public. Since the Duggan riots in 2011, MPS recognized the importance of social media as a way to reach the entire population, and they now using social media to develop tactical planning and incorporate these with future strategies.

Meindl and Ivy (2017) indicated that there are numerous examples of policing involving the use of social media. For instance, a campaign known as the GMP4 was developed by the Greater Manchester Police and it provided a platform for people to be familiar with the situations surrounding police activities during violent acts. The campaign enabled the community to witness the calls received by police on a daily basis and how they respond to different kinds of circumstances. It was clearer that police constantly put their life in danger, and they require community support (Meindl & Ivy, 2017).

Police have also constantly used social media to interact with individuals (Miranda et al., 2016; Sutherland, 2016). Sutherland (2016) highlighted his observations during the August 2011 riots in England. Following the riots, the police used social media to post pictures and provide detailed information of persons believed to be the cause of the havoc. The police appealed to two people to provide information that will lead to their arrest. This way of interaction and delivery of information made it possible for the police to capture a number of people responsible for the riots. Besides, some of the wanted persons offered themselves to the police to avoid arrest (Sutherland, 2016).

Meanwhile, the account of Houston et al. (2015) revealed that the Surrey Police developed a social media-based app by integrating information from social media into police files. Such information guides the police on patrol and those that move around the city with helicopters. The social media sites were well-integrated into the application so that people could easily inform them regarding unfolding incidents. The app developed by Simon Gordon also allowed people to anonymously identify suspects by simply using their smartphones to message the police or crime stoppers. The application is limited to Sussex, Surrey, and London, but it could be widely applied in other countries, particularly the US. The authors agreed that it takes something as significant as suspect identification and utilization of social media platforms to enable individuals to identify and report a suspected criminal within seconds (Houston et al., 2015; Meindl & Ivy, 2017; Sutherland, 2016). In the same vein, Langman (2018) introduced the notion of intelligence officers in police research. He contributed to this discussion by emphasizing that law enforcement agencies should also make use of intelligence officers to assist them in determining the significance of social media in avoiding mass shootings. These officers should also help the police determine real threats as they avoid false alarms (Langman, 2018).

Summary and Conclusion

Mass shootings are complex and tragic incidents that deleteriously affect the lives of victims, their surrounding environment, and the entire society. Given such complexity, various researchers have tried to relate the emerging trends in technology with mass shootings. Different forms of social media have been positively regarded in the way they revolutionized the way people communicate with each other. However, there had been a series of devastating events that

were catapulted to national and international headlines by the emergence of social media platforms.

This study sought to understand the role of social media in influencing actions of people who are involved in mass shootings in the US. The government, through various law enforcement agencies as well as other concerned organs, have committed themselves towards reducing the prevalence of mass shootings and their effects on the population. However, as seen in the literature review, the vice continues to be a vibrant form of crime. The study used the Social Ecological Model to identify the different factors that can protect people from violence or those factors that bring them into situations where they face violent perpetrators.

An analysis of different works of literature indicated that social media influences school shootings, but even so, social media can also be used to predict and stop the attacks. It was evident from literature that mass shootings are easily imitated mass media have a role mass shooting. Consequently, mass media in society, particularly social media were found to prompt actions that lead to additional mass shootings with the influx of technology. Media is, therefore, a mixed blessing to the community. Previous research highlighted that social media reports may entice further shootings. However, when channeled effectively, social media may also help curb such violence. For instance, in an effort to use social media as a tool for the detection and prevention of mass shootings, the government could introduce ways of adopting this effort the same way it did when it stopped the media from reporting celebrity suicides before the new millennium. Also, when a mass shooting occurs, news outlets can be more reactive and approach the situation by adhering to the guidelines presented by different researchers. The media outlets

can also be a part of the efforts to establish campaigns that aim at minimizing the likelihood of future mass shootings.

In sum, insights from the studies reviewed in this chapter were highly educative. However, existing literature failed to address the issue in regard to law enforcement perception. Hence, this research addressed the aforementioned gap by discussing social media effects from the perspective of law enforcement agents and how social media can help stop mass shootings. The study ventured to achieve its objective utilizing both primary and secondary data in an attempt to acquire ample evidence to address the gap in knowledge from the previous studies.

Chapter 3: Methodology

Introduction

The United States continues to address the issue of mass shootings, which has become a perpetual challenge. In spite of the criminological reactions observed currently, this disaster persists and is aided by policies that tend to be grossly oversimplified, unproductive, and highly politicized (Swearer & Hymel, 2015). The purpose of the research was to address the role played by social media in the spread of xenophobic ideologies leading to mass shootings, as well as the concern of law enforcement about this phenomenon. I aimed to present knowledge by working on a theory-building approach to discover why mass shooters are increasingly turning to social media, and how social media may be able to help mitigate the crisis. I considered it an imperative to redress the limitations observed in previous research and other literature regarding the relationship between social media and mass shootings, while also seeking means to bolster the effectiveness of social media in facilitating interventions to combat and end mass shootings. Additionally, I sought to develop a framework to help in reducing instances of mass shootings while also empowering law enforcement agencies to be more efficient in preventing violent attacks as well as reducing the spread of the suicide contagion and hate crimes.

In this chapter, I present a rationale for the chosen research methodology by explaining its justification and, in the process, highlighting factors that governed the entire process. The appropriate methodology is explained together with each strategy to establish consistency in the stated research outcome desired. The section also confirms that the selected methodologies were considered based on a comprehensive analysis. The approaches undertaken were considered to be adequate, hence necessitating the application of these approaches. The topic of law

enforcement perception of social media as an influence in mass shootings has a qualitative nature. Hence, this study applied suitable research methods in its analysis. I adopted a qualitative research design that involved the use of two major methods: interviews and case studies.

Research Design and Rationale

The research question was the following: What role does social media play in influencing the actions of the perpetrators of mass shootings in America?

A theory-based framework was used to understand the interactive and multifaceted effects of both personal and environmental influences, and that could determine personal behaviors as well as identify organizational control points and intermediaries for health promotions was the preferred model. Known as the SEM, this framework is based on five levels—individual, organizational, interpersonal, policy/enabling environment, and community—as presented in Appendix B. Simplican et al. (2015) confirmed that this is the most effective model used in public health prevention efforts.

Qualitative Research Design

I selected a qualitative research design to enable the collection, synthesis, and presentation of data, as such a design would have characteristics appropriate for an inclusive study of the topic. Qualitative research involves examination of all facets of an issue under investigation, including a descriptive analysis of the problem and descriptive perspectives such as ensuing thoughts, feelings, and opinions on the topic (Marczyk et al., 2017). The design was exploratory—a method centered on the gathering of a variety of statistical and non-statistical data that offer sufficient insight into fundamental incentives, reasons, and options related to the

problem being studied. In the setting of this study, this design highlighted the law enforcement perception of social media's influence on mass shootings through qualitative analysis.

The study was equipped with the capacity to draw parallels between the adverse implications observed on the law enforcement front to the influences of social media on the media front. The design was exhaustive and involved the collection of all data that could offer an inclusive perspective into the problem. Qualitative research was crucial to idea development in this analysis, as conflicting and varying perspectives were at times issued. The design also facilitated a contemporary analysis of trends in the topic to present a well-researched and balanced analysis as it applies in the general environment (Morse, 2015). The research applied qualitative technique because it provided suitable data collection methods, including both unstructured and semi structured methods. The sample size was regularly lean and definite as was required in this study, and the data-gathering approaches used were interviews and observations. Furthermore, the application of qualitative research was informed by the desire to develop a well-rounded approach to the issue of social media and its influence on mass murders, a prospect that was deemed achieved. I collected data from both primary and secondary sources, as explained in the sections below.

Research Tradition

Grounded theory (GT). It presents a set of methods in the systematic inductive field, used to conduct qualitative research that aims to develop a theory (Belgrave & Seide, 2018).

Researchers have been using the term to imply the application of methods of inquiry aimed at data collection and, most specifically, data analysis. GT endeavors to recognize and describe the

behavior of humans through the processes of inductive reasoning. Because of its requirement for the application of various data sources from specific contexts, it presents a more natural perspective when designing social research studies. The methodological strategies that drive GT are aimed at constructing middle-level theories from sufficient analysis of data. The inductive theoretical push characterized by these methods is usually vital to their sense of aspect. The subsequent analyses derived power from robust empirical reasoning.

These analyses present abstract, focused, conceptual theories explaining the empirical phenomena under study. Grounded theory is known to have significant importance, as it does the following:

1. Provides precise strategies to handle systematic phases of inquiry.
2. Presents explicit, progressive guidelines for qualitative research analysis.
3. Advances qualitative data conceptual analysis.
4. Integrates and rationalizes the analysis of data.
5. Legitimizes the scientific context and nature of qualitative research.

Methods applied by grounded theory have become appreciated as standard social research techniques, and they continue to influence scientists and researchers from varied professions and disciplines.

In addition, grounded theory was initiated from the idea that all empirical inquiries are supposed to explore social constructs by looking at the experiences of people, existing problems, and how the society intends to resolve the problems. In essence, grounded theory should result in the development of applicable theories that can adequately reflect the actions and experiences of

people. To achieve this, the methodology of grounded theory observes data patterns using a precise data collection and analysis technique. The methodology is inductive because it is guided by people's experiences in the inquiry, which reflect patterns constructed in the findings. The results are significant because the methodology of grounded theory is not aimed at pre-imposing theoretical notions regarding the view of all social phenomena. Such an analysis differs from other forms of qualitative inquiry. For instance, ethnography incorporates a collective knowledge base assumption of the definition of ethnography, and consequently, ethnographers behave within the inferences of the conventions. The situation implies that the researcher gets to pre-impose ideas regarding the understanding of social phenomena through the viewpoint of ethnography. However, it may not reflect what takes place in the specific social phenomena.

George (2019) stated that theoretical constructions developed on ethics portray a parallel notion: normative ethical concepts reflect disciplinary-based notions, as opposed to the actual happenings and developments in an ethical encounter. Experimental ethics is a creative step that facilitates the understanding of ethics in the social setting; however, it is bound within two assumptions:

1. Empirical findings can be framed within ideologies that are pre-imposed regarding research and knowledge. Hence, it could signify the framework that forms the basis of research, as opposed to what really transpires in the social context.
2. Empirical findings can explore the normative concepts of the social context. The disadvantage of this assumption is that the focus of analysis is predetermined and predefined. Hence, any research explores a concept that has already been defined. As

such, findings do not explore whether the concept can be observed in the social context; rather, they are related to the concept (George, 2018).

Role of the Researcher

Within both postmodern formative theories, the researcher is believed to be a fundamental part of the research methodology. Likewise, qualitative research allows a researcher to play a central role by collecting and interpreting the necessary data. Qualitative research is a value-embedded interactive process, therefore refuting the conventional idea of interviews being neutral (Morse, 2015). Subjective individuals undertake any piece of research, and this form of subjectivity should be acknowledged. Moreover, when this subjectivity is acknowledged by a researcher, he or she can account for what led to the investigation of the subject. In qualitative research, the researcher, being an interviewer, assumes a significant role in how reality is constructed by the interviewees. The outlook of the researcher in regard to life, observations, and personal life experiences has a high probability of influencing data collection, analysis, and interpretation processes. The perfect qualitative researcher gets absorbed in the subject under study and makes any bias transparent. Similarly, interviews enable social interaction in which the contributions of the researcher and those of the interviewees are both interesting.

Through reflexivity, researchers can easily develop an understanding of an issue under study, implying that the researcher can depend on personal experiences during the research process to facilitate easy identification and understanding of what is said (Alshenqeeti, 2014).

I am an American citizen working in Afghanistan. Through my experiences with people of different ideologies across both the United States and Afghanistan, I identified with different

constructs presented by the study participants. This was a result of interacting with people from both countries, as well as my awareness, as an American, of past mass shootings and the increase of such events in the United States.

However, despite my opinions and experiences, the aim and purpose of the study was to provide a clear understanding of the chosen phenomenon based on the participants' perception of recent events. Consequently, I set aside my perceptions of the issue and focused on listening and understanding the responses from the participants being interviewed. During analysis, I was able to associate my understanding of mass shootings and the role of social media in spreading hate messages to substantiate the opinions and views of the participants. Additionally, it was important for me to reflect on my position as I remained focused on the interviewees' content. The reliability and validity section provides more information on this.

Methodology

Sampling

Jamshed (2014) indicated that many forms of sampling are possible when undertaking research; however, researchers in qualitative analysis tend to put emphasis on rather small samples. Participants in such studies are selected for the reason that they can articulate their understanding and experiences and are willing to offer rich descriptions of their involvement, thus providing information that is able to enrich and test the knowledge and understanding of the researcher. The selection of participants for this research involved the use of two non-probability sampling techniques. The sampling approaches were a mixture of judgment and snowball methods. Snowball sampling is the process of asking interviewees to recommend other persons

to take part in a study (Bryman & Bell, 2015). In this study, I particularly selected participants who had the ability to contribute to the topic under study and who were also willing to contribute their experiences in the management and handling of mass shootings. I approached the FBI, local and state police departments, and other first responders.

Bryman and Bell (2015) asserted that qualitative studies require a minimum of eight to 10 participants to achieve saturation—a point where new themes stop developing. Hence, I initially planned to include 10 participants so as to achieve maximum saturation. The obtained information would be reliable enough, as it would represent this study's target population. However, as I explain in the next section, only seven participants were interviewed for this study. Six were involved in law enforcement, and the seventh was a former military officer who now designs survival curricula and trains first responders for safety and survival. I initiated follow-up discussions on the interview questions before the assessment of results with the law enforcement agents to take note of any updated information regarding the current trends in mass shootings and the role of social media in helping law enforcement combat the crime.

Data Collection Methods

Interviews. The primary data for the study were derived from interviews. This method is specifically useful when a researcher wants to be aware of the story behind participants' experiences (Alshenqeeti, 2014). In addition, the use of interviews facilitated the understanding of in-depth information based on participants' personal experiences (Schick-Makaroff et al., 2016). The research involved personal interviews enabled through unstructured questions on the topic of this study. The interviews were conducted either face to face or via Skype, depending on

the preference or availability of the participants. I recorded the interviews with a tape recorder for future review and analysis. Hence, the evidence can be obtained at any given time and it will still be complete and accurate. Skype was considered useful because the respondents were highly skilled law enforcement personnel who were sometimes unavailable during office hours or were posted to different locations. It was important to offer them fast and easy means of communication. The questions presented in the interview were designed to collect important information on the topic and covered issues surrounding social media and mass shootings in the United States. The interviews consisted of four questions, which were followed up with discussions guided by the responses provided by the interviewees. Thus, they provided detailed findings.

I conducted interviews until the data reached a saturation point and there was no more need for additional interviews. Hence, out of the 10 interviews that I planned to conduct, I expected to gain little new information after the seventh interview. The last session of the interviews confirmed all of the information that was received in the previous interviews, which demonstrated that the information gathered had reached a saturation point. At this stage, I decided to end the interview process and begin analyzing the data. I planned to conduct the interviews in 30 days and compile and assess the results in another 30 days. This schedule was followed.

The questions of the interview were open ended and included indirect questions that helped in obtaining information about mass shootings and beliefs concerning the role of social

media in the development of these crimes. The details presented below describe the interviewing techniques that were used in the study.

Nonstandardized interviews. I preferred the use of non-standardized interviews. A non-standardized interview is a data-collection tool that allows minimum control by interviewers in the interview process (Jamshed, 2014). Unlike structured interviews, which contain fixed probe questions, non-standardized interviews are open and more flexible, allowing greater interaction between the interviewer and interviewees. Nevertheless, during the interview, the interviewer also incorporates specific questions. The questions depend on the type of discussion in the sessions (Bryman & Bell, 2015). The specific questions targeted issues such as the processes used to analyze the motives of perpetrators and the professional background of the respondents in dealing with the offenses.

The inquiries that touched on the respondents' knowledge regarding the analysis of the perpetrators' behavior were structured in such a way that they gave respondents the floor to communicate their information openly. Guiding interviews in this way encouraged the respondents to communicate their perceptions of the happenings, their feelings regarding the situation, and their thoughts about the events. Interviewees were given the ability to define the study's direction as well as the content. Since the interview process was intended to provide the interviewees with the best opportunity to talk openly, he considered the interaction between him and the interviewees during the entire session. Improving interaction between an interviewer and respondent involves treating the interviewee as an active agent. Such kind of interaction is known as "sense-making activity". It is the activity that results when respondents are more active

during interviews that they negotiate with the interviewer the sense of questions and answers.

With the help of the interactions, the discussion assumed different directions that contributed to adding depth and breadth to the understanding of the phenomena.

Open-ended interview questions. The significance of open-ended interview questions is that they do not confine interviewees to respond by yes or no (Kendall, 2014). This development is a valuable factor in the interviewing technique through the use of unstructured interviews. It can have an immeasurable value in the creation of links and the understanding of concepts that are crucial aspects of research. It implies that respondents may give unpredicted answers that could highlight relations that were not anticipated (Kendall, 2014). In unstructured interviews, the use of open-ended questions does not restrain the expressions and answers produced by respondents. This feature suited the inquiry in this study since the questions fitted the aim of the inspiring respondents to relate openly with me and communicate their thoughts freely, despite the inquiry's research nature. The technique allowed the interviewer to have a better understanding of the beliefs and perspectives of the respondents (Kendall, 2014).

Indirect question type. Questions on beliefs and personal perspectives are usually sensitive. Respondents may be reluctant to directly disclose such information. It is the responsibility of the interviewers not to make interviewees feel uncomfortable when expressing their thoughts (Mitchell, 2015). The interviews included a questioning system known as the "indirect question type". One common and well-defined pattern of mass shootings is the relationship between mass shootings and the advent of social media. The interviews considered this issue. In this relationship, the act of perpetrators of mass violence can be evaded or

controlled if their Facebook accounts are monitored. Since it is imperative for the interviewer to ask questions about the process of investigating and averting such incidents, this kind of questions could infer a purpose to critic the efforts of law enforcement agents in handling the crimes. Thus, to avoid refusal by the law enforcement agents, I will use "indirect question" to inquire about their knowledge regarding how to use social media to stop the increasing rate of such crimes. In respect to the thoughts of Kerlinger and Lee (2000), two indirect question methods were used. The authors illustrated the topic of social generality level and asserted that interviewees can respond according to their personal opinion or the perception of a broader community or group.

The significance associated with this is that response distribution to questions that are personalized can distinctly differ from response distribution to questions that are impersonal. The form that should guide the questions is "what other people" think about the problem under study since it can prompt more evidence. Kerlinger and Lee (2000) recommended the second technique. They advocated that the respondents could possibly be given a vague question or an ambiguous stimulus (like a spot of ink or a blurry picture). The method was useful in the interview session and it helped the study to obtain important information from the opinions and views of the interviewees. In conducting the interviews, the researcher applied these two methods namely - social generalization questions and the ambiguous questions since the law enforcement personnel may be more comfortable to express their sentiments on the sensitive issue being investigated by answering impersonal and indirect questions.

Case study. The research also adopted the case study technique. The case study analysis involved a rigorous and detailed analysis of one or few cases where the nature and complexity of the case are under study (George, 2018). A case study can be defined as the examination of a phenomenon such as a process, an event, a program, a social group, or an individual. It is also referred to as a research method or analysis unit. In this study, it was used as a method of research (Meyer, 2015). George (2018) also indicated that case studies provide an empirical examination of a current phenomenon within an actual framework. When certain aspects of the phenomenon and context cannot be observed and understood clearly, and in which multiple sources are consulted. Case studies can be important research methods since they assist in the investigation of pre-defined phenomena and do not initiate manipulation or explicit control of variables. Rather, they help to emphasize on an in-depth analysis of the context surrounding a phenomenon. A bounded case or system is selected since it is an illustration of a particular theory, matter or concern.

As quantitative analysis observes macro-level data, case studies investigate micro-level data. A case is typically a specific, operative, and intricate item. Scholars such as Morse (2015) continue to view case studies as an important research technique because it is not limited to a single formal protocol and it involves an inquisitive mindset during data collection. Morse (2015) states that case studies are more suitable when a study bases on a modern phenomenon and I have little control of events that occur. The boundary of this study is the school settings and law enforcement personnel.

One advantage of case studies is the ability to combine other sources of evidence and make the results more accurate and appealing. Another great strength associated with case studies compared to other research methods is that it allows the collection of evidence from multiple sources. Case studies also enable researchers to examine any type of data involving a particular event. The studies are intended to aid theory development of a poorly understood phenomenon (George, 2009). The role of social media in the rise of mass shootings is definitely a phenomenon that is poorly understood, and this encouraged the use of case study by this research. The case study was considered viable for this research due to three main reasons.

First, the study enabled the researcher to analyze the phenomena in a natural setting, to understand the practical factors and formulate theories to guide the study. The study determined the role of social media in the current development of mass shootings in America. It also investigated underlying factors leading to mass violence. Second, case analysis allows researchers to answer the “why” and “how” questions. Additionally, it aided in the understanding of the complexity and nature of the surroundings involving mass shootings and the background of the perpetrators. The research focuses when, how and why social media influences mass shootings. The study also discussed the significance of using social media as a tool to detect and avoid mass shootings. By identifying the significance of the collaboration between the use of social media and law enforcement, it facilitated the role of social media in tackling mass shootings. The study also delved into the role and psychological impact of social media in general and its place in the current society. Thus, a better perspective on the structure of social media and how it can be modelled to utilize its full potential. The research also discusses steps to

be taken while addressing the trends in social media. Thirdly, the application of a case study is an appropriate way to analyze areas where the studies provided limited information.

Assessing the law enforcement perception of social media as an instrument in mass shootings is an area that has been less studied as discussed in chapter 2.

In this research, case studies were combined with other data collection tools such as interviews. Many known researchers have applied the use of case studies to analyze phenomena in the field of management, business, science, social studies etc. Nonetheless, certain limitations exist regarding this design; the study's external validity, when it is exposed to question e referring to one or two cases that do not represent an entire group of organization. In response to the described limitation, it is imperative to understand that the case study aims to examine different cases and later form a framework based on distinctive contexts, but not create generalized results of large cases. The case study design chosen allowed me to compare and contrast the cases while considering what is known as normal or unique across the cases. This study will use four cases to provide a representation of the problem. The cases include the Florida School Shooting, the Texas High School Shooting, Pulse Night Club shooting, and the Tree of Life Synagogue shooting.

Florida school shooting. The Florida school shooting involved a 19-year-old man, Nikolas Cruz who attacked a school in Parkland, Florida. According to the report in Florida, Cruz found his way into the school and started shooting people outside before deciding to put on a mask and deploy smoke grenades and later fired his weapon as he entered the Marjory Stoneman Douglas High School. After the shooting, Cruz left the school but was captured an

hour later. The incident occurred around 2:30 p.m. on a Wednesday and the Broward County Sheriff addressed reporters late that Wednesday saying that the assailant had posted disturbing images and one video online just before the incident (Rozsa, Balingit, Wan, & Bernam, 2018).

According to media outlets that saw the images and video posted from the perpetrator's Facebook and Instagram pages, the accounts had photos of a man displaying guns and knives. However, the head of the individual was covered with a mask, which did not reveal most of the face and head. In most of the photos, the owner's face was covered. On Thursday, Facebook and Instagram issued a statement on the matter claiming they actively acted on the issue by deleting the suspect's profile after the devastating event. The gunman was later charged with 17 counts of murder (Rozsa et al., 2018). Some of the captions on the assailant's photos indicated that he got involved in incriminating activities. The culprit also posted the target school with a caption that reads, "Group Therapy." Additionally, he also posted a photo that defined "Allahu Akbar" an Arabic phrase meaning "God is great" and it was followed by a Muslim slur. Following some of his earlier posts, at one time Facebook took his page down. After the shooting, the media found out that the FBI had received reports about Nikolas Cruz who was using YouTube to inform another person that he was interested in being a school shooter. However, the FBI stated that they could not prosecute him due to lack of enough evidence, even though they had his full names.

Texas high school shooting. Santa Fe High School in Texas, United States was attacked by a shooter resulting in the deaths of 10 individuals – two teachers and eight students on May 18, 2018 (Andone & Allen, 2018). Thirteen other persons were seriously wounded and taken to

the hospital. Three weeks before the incident, the alleged shooter Dimitrios Pagourtzis took to his Instagram account and posted a picture of a handgun and a knife atop a mattress with a profane caption. After the Texas incident, a source confirmed that the Instagram account was deleted along with his Facebook account. However, later reports indicate that Facebook is not certain of the ties between the shooter and the Instagram account. Another post from the Instagram account presented a picture of Silent Scope – an arcade game that allows people to act as snipers and use a controller shaped rifle that is captioned with a smiling emoji. The Instagram account followed only 13 other accounts, and eight of them were associated with firearms. The other accounts that he followed included the official accounts for President Donald Trump, Melania Trump, and the White House. On April 30th, the 17-year-old's Facebook page had a photo of a T-shirt spread displayed on a bed with the phrase "Born to Kill." On the same day, Pagourtzis posted a photo of a trench coat similar to the one he used to wear to school. The trench coat was covered with pins and an Iron Cross. The cross is a German medal associated with the Nazis. The coat also had a goat symbol like the one associated with the Church of Satan. The caption that followed the photo was a description of some of the pins. The photo was captioned as: "Rising Sun = "Baphomet = Evil," Kamikaze Tactics," "Hammer and Sickle = Rebellion," "Cthulhu = Power," "Iron Cross = Bravery." While social media posts could offer clues to the perpetrator's state of mind and interests before he allegedly started shooting into a classroom, not all could be described as darkly themed and belligerent.

On May 2nd, Pagourtzis uploaded a selfie where he wore a baseball cap backwards. The cap was decorated with a purple and pink striped pin associated with bisexuality, as indicated by

online retailers. The profile photo was his picture wearing a black and white hat with a peace sign (Andone & Allen, 2018).

Details of the suspect's life started to emerge hours after the incident. For instance, a local newspaper revealed that Pagourtzis was at the at Santa Fe honor roll during his freshman year. Additionally, he was a member of the Santa Fe junior varsity football team, but his name was missing in the current roster.

Pulse Night Club shooting. On the 12th of June 2016, an American man and follower of ISIS made his way to a packed Pulse night club in Orlando, FL killing 49 people and wounding 53 others. According to authorities, the incident was the most lethal mass shooting in the country at that time and the worst act of terror since 9/11. In 2013 and 2014, the shooter, Omar Mateen was interrogated by FBI detectives but was not seen as a threat to national security. During the attack, the 29-year-old gunman called 911 and mentioned the Boston Marathon perpetrators as he declared his allegiance to ISIS (Fantz, Karimi, & McLaughlin, 2016). The police reported that Mateen carried a pistol and an assault rifle into the nightclub a few hours past midnight and began shooting the party goers. After the first shootings, the police arrived at the scene and surrounded the place. Some of the clubgoers found refuge in bathrooms as others hid at other parts of the club. Inside the club, people still communicated with their loved ones and the authorities on phone from around 2. a.m. to 5 a.m. After a three-hour standoff, the police decided to break down the building door using an armored vehicle and ambushed the entrance with stun grenades, eventually killing Mateen (Fantz, Karimi, & McLaughlin, 2016).

John Mina, Orlando Police Chief stated that "It appears he was organized and well-prepared,"(Fantz, Karimi, & McLaughlin, 2016, para. 8). The authorities also indicated that they had no reasons to believe the assailant had accomplices. Jihadi forums did not claim responsibility for the shooting, but the sympathizers of ISIS reacted to the incident by hailing Mateen on pro-Islamic forums. In a State address from the White House, President Obama admitted that it was an act of hate and terror. He further stated that while the violence was against the Americans at large, it was a particularly distressing event for the gay, lesbian, transgender, and bisexual community (Fantz, Karimi, & McLaughlin, 2016).

The Tree of Life Synagogue shooting. In a more recent incident, the Jewish community of America was attacked by a shooter who gunned down 11 worshippers at the Pittsburgh synagogue on a Saturday morning. Police reports indicated that the incident was the most severe attack on the Jewish community living in America. Law enforcement reports state that the suspect, Robert Bowers, used social media to target Jews and made anti-Semitic remarks while he was gunning down his victims. Bowers informed a SWAT officer that he wished to kill all Jews (Chaves, Grinberg & McLaughlin, 2018).

The authorities reported that the attacker acted alone and is facing 29 federal charges that could land him a death sentence. The Justice Department spokesman also revealed that Scott Brady, the Pittsburgh US attorney sought Attorney General Jeff Sessions' approval to go for the death penalty against the attacker. Bowers was scheduled for a court appearance the following Monday (Chaves, Grinberg & McLaughlin, 2018).

The incident hit Pittsburgh's Jewish community and the feelings were echoed across the entire country, leading to a week of disturbing incidents with roots of hatred. Reports from the Jewish organizations highlighted that the shooting accentuated the need to address hate crimes especially during the rise of anti-Semitic acts. Through his statement, President Donald Trump condemned the crime as he sent his condolences to the victims and their families and friends. He also ordered flags to be flown at half-staff. The following Sunday, the metropolitan Pittsburgh residents were joined by community leaders, visiting dignitaries, and politicians at a local University for an interdenominational service. The dignitaries and politicians pledged to fight hate speech and support the community (Chaves, Grinberg & McLaughlin, 2018).

Data Analysis

Data collection took place during the period slated for data collection and was systematically integrated into the aspects of the research, including a thorough analysis of the case studies and interviews. The system made it possible for every step of the data collection to be contained in the analysis. This system consisted of three strands that utilized qualitative analysis and also involved triangulation to achieve enough rigor. The case studies should balance out the response from interviews and should to confirm and not contradict their viewpoints.

The first strand consisted of an environmental scan of law enforcement experts on issues to do with social media and the spread of mass shootings. The second strand consisted of an ethnographic method (in-depth interviews) and a panel study that helped assess the responses of law enforcement agents towards the role of social media in controlling mass shootings.

Interviews took place during the designated period and they were designed to have a different

focus. Lastly, the third strand was designed to test a model behind the hypotheses developed on the relationship between social media and mass shootings. This include subjecting a control group to a cohort analysis to examine the larger effects of social media posts on the reaction of people. All of the above strands, particularly 1 and 2, are influential to grounded theory analysis (Belgrave & Seide, 2018).

Computer-based programs are major tools used in grounded theory analysis (Paulus & Lester, 2016). This study used textual analysis for the grounding data process by the use of Nvivo Pro software. Through the input of interview transcripts and searching for common themes in the first interviews – by using interview data and ethnographic and theory – and code refining, the software allowed the coding process and also made connections between codes through the creation of social media groups (Paulus & Lester, 2016). Moreover, the software allowed the aspects of a quantitative descriptive methodology to occur through quotes listings and numbering under groups, close to an interplay between quantitative and qualitative as discussed by Friese (2014).

Most of the time, the qualitative data coding process is iterative (Gough & Tripney, 2016). As such, manual coding consists of a number of levels to parse the data gathered from raw information. Given that manual coding is a long and tedious process, this dissertation took advantage of technology by way of Nvivo Pro version 12.4.0.74 (QSR International, 2018). Nvivo Pro is a qualitative data analysis software capable of processing a range of text-based and multi-media files (Chandra & Shang, 2016). In the Nvivo computing environment, automatic coding brings in nodes in place of themes. A node refers to “a collection of references about a

specific theme, place, person, or other area of interest” (Bill, Bryman, & Harley, 2019, p. 543). In this dissertation, there are parent-categories (level 1) and sub-categories in place of higher-level coding.

There were five theme nodes, based on the four interview questions and another theme node based on the specified mass shooting incidents in all four interview questions. In sum, 78 categories were listed for the five parent nodes. Each of the theme nodes were coded for the four research questions, whereas the case nodes comprised of specific incidents of mass shootings discussed in the case studies.

The gist of the first interview question was the basis for naming the parent node or theme, Social Media Link to Mass Shootings. This parent node comprises of answers to the question: The development of social media communication tools has been associated with both positive and negative elements. *What is your opinion in regard to the link between social media and the increased incidence of mass shootings in the United States?* There were four child nodes under parent node A: (1) Enablers, (2) Group or Symphonic Terrorism, (3) Individual or Personal, and (4) Technology. The complete listing for all nodes is shown in Appendix C.

Meanwhile, the second interview question provided an apt name for the parent node B, which responds to the question: Despite the global advancement of technology, the United States leads in social media misuse, possibly, through the spread of hate crimes and xenophobic ideologies. *How do government agencies currently deal with this problem based on what information is known to you at the moment?* Parent Node B consists of two child nodes: (3) Government actions and (4) Issues.

On the other hand, the third interview question inquires: *Do you believe such information* (i.e., those from Facebook, Twitter, and other social media sites disseminating xenophobic ideologies via hate speech) *can help law enforcement agencies to prevent future crimes? And if so, how can it be achieved?* Two child nodes were created for parent node C: (5) intelligence gathering and (6) issues. No other child nodes were created under child node 5. However, a wide range of issues surfaced from the interviews for child node 6, from censorship – political correctness to will and opportunity, or a total of 11 sub-themes under child node i.

Parent node D was named, Facebook Role for Future Peace and Unity, grounded on the fourth interview question: In your experience and understanding of mass shootings in the US and the power of social media, *how do you think Facebook, as the largest social media network, can lead other sites in spreading peace and fostering unity, if that is actually possible?* Under Parent node D, 11 child nodes were created: (7) consumer user's responsibility, (8) effect on revenues, (9), expansion of platform features, (10) fact check, (11) market leader role, (12) messaging-phrasing, (13) not Facebook's role, (14) political blocking censorship, (15) reputation management, (16) social responsibility in vision mission, and (17) utilizing predictive analytics.

Lastly, parent node E was named Specified Incidents. It consists of 10 child nodes named after cases of specified incidents cited in all the four interview questions : (18) active killer – knife incident, (19) Columbine HS, (20), HS, Florida, (21) mosque, Christchurch, NZ [Note that this was later combined with the synagogue in number 27 because this is a case of same-shooter, same-location incident, but different targets, (22) Mumbai multiple, (23) Oslo, Utoya Island, Norway, (24) Outdoor concert, Las Vegas, (25) Roanoke, VA, (26) Sandy Hook Elementary,

Newtown, CT, (27) synagogue, Christchurch, NZ (merged with mosque incident), and (28) Virginia Tech.

Issues of Trustworthiness

Reliability and Validity

Reliability and validity are two important aspects that were considered in establishing a qualitative research since the two concepts help in determining research objectivity (Noble & Smith, 2015). Reliability and validity are two different instruments of measurement that illustrate a study's credibility and trustworthiness. Reliability and validity are divided into either internal or external factors. Noble and Smith (2015) defined internal reliability as a case of more than one researcher within a certain study which allows them to agree on what they hear or see. In contrast, external reliability indicates the extent to which a research can be completed for the second time with results that are comparable to the original study. High external reliability may not be easy to achieve since the setting and scene could change from the period of the first research to that of a second study (Noble & Smith, 2015). Nevertheless, a technique mentioned by Bryman and Bell (2007) involves adopting a role that is similar to the original research in an attempt to reproduce the first research.

Consequently, I worked extensively to achieve high reliability, this section provided a detailed description of the interviewing and data gathering process. The detailed description provided in this chapter made it more practical for researchers to duplicate the study under similar conditions to obtain comparable outcomes. In regard to validity, internal validity refers to

the degree that researchers can agree and achieve the same results i.e. if there is an upright match between their theoretical thoughts and observations that they expand through the study.

Internal validity is believed to be an asset of qualitative research since researchers are able to study and analyze a social setting over a long time resulting in excellent correspondence between concepts and observations (Marczyk et al., 2017). Alternatively, external validity is sometimes considered a problem within qualitative research, since it describes the extent of applying findings in social settings and researchers of qualitative analysis utilize case studies and small samples. In this research, interviews were tape recorded and after interview transcribing, the materials were sent to the interviewees to seek their approval before using the material. This was done to increase the research validity and reduce the possibilities of depending on my understanding and data interpretation.

Lastly, in order for me to ensure that the data provided were reliable, she discussed the interview text analysis with the chair of this study, who will make her interpretation of the gathered information as she also questions the analysis. Moreover, the analysis will not only depend on my interpretation but will also consider the analysis and themes presented by other persons with interest on the topic. Also, the data were presented to other researchers for their own analysis and input to determine if they will come up with similar findings. Kendall (2014) emphasized, if people that are involved in a particular analysis develop the same results then there are high chances that the findings are both dependable and accurate.

Ethical Considerations

The study was subject to both approval and review of the University's Review Board for Research with Human Subjects. The required IRB documents were prepared in accord with the institution's procedures and policies. The documents comprised of data collection instruments, informed consent forms, completed informed consent checklists, and the Protocol Form (Initial Review Submission Form). The IRB was provided with different materials that include the type of proposed study, information about me, type of requested review, and the type and number of subjects. The application also included the research description, its significance, participants, procedures and methods.

Informed Consent

The study utilized the IRB informed consent checklist and devise an informed consent form. Interview participants were briefed on the research purpose and conduct. I made it clear to them that participation is voluntary, and they are allowed to pull out from the project whenever they want. I also explained the rationale behind the study and clearly described the data collection and analysis to the participants so that they are aware of everything they are doing. I then asked the participants to provide consent to their contribution to the study as long as they understood all the details. The consent was given through a signed written consent form. The participants' consent was recorded, and I kept notes of the briefing dates and of the briefed persons. As stated earlier, this research dealt with information about the rise of mass shootings and the role of social media in this development, including how law enforcement agents utilize information available in social media to curb these incidents. Therefore, the researcher applied

all effort to ensure that there is no revealing of the persons from whom the information was generated. It is important for the researcher to consider all ethical concerns involving seeking consent, issues of confidentiality, and protecting individual's anonymity, all of which the research participants were informed.

Recruitment

The interviewees were provided the leeway for the choice of the meeting place at their convenience. Prior to the interview sessions, the participants were presented with a letter from the university as a sign of appreciation for their active participation in the study. The interviewees were briefed about the need for and the content of the research project. In addition, the researcher addressed the participants' concerns by answering any questions that they may have. Their queries were answered happily and in a polite language and all participants were reinvigorated to be at ease during the entire interview process.

Risk Concern

The research is of exploratory nature; hence, the interview sessions will not cause any form of distraction to the work of participants. The interview techniques that were used in the study were designed to assist the interviewees to be able to tell and describe their experiences in dealing with mass shootings and how they apply social media to control the crime. Therefore, this study can be thought of as communicating and modifying the attitudes, thinking, knowledge, behavior and or feelings of the participants. Additionally, though the research will deal with law enforcement personnel at different levels, they will contribute to the research individually. Moreover, all the information obtained during the interviews will not contain sensitive questions

that can distract participants. Basically, the main risk associated with this research is that the use of snowballing technique will involve sharing names of associates, which can create a sense of obligation, or imply future advantages, and can interfere with participants' job security. Other risks involve minor discomforts that can be encountered in daily life such as stress, fatigue or becoming upset. In regard to the major risk, only six participants will be randomly selected from 40 potential contributors recommended by the first participants; thus, their identities will not be known by the first partakers. The other risks were managed by giving the interviewees a break whenever needed and not asking intimidating questions.

Privacy

The participant's personal information was treated confidentially throughout the study and after completion of the research. Interview tape recordings will be retained for 5 years then disposed of by the use of a degausser. Furthermore, all personal data such as personal information and interview recordings were used in the study with the consent of the individuals. Also, in an effort to protect the privacy of the participants, pseudonyms were used in place of the interviewees' names. The study used seven pseudonyms to refer to the interviewees in the form of the first seven letters of the Greek alphabet: Alpha, Beta, Gamma, Delta, Epsilon, Zeta and Eta.

Conclusion

The section discussed the research methodologies which were applied in this research. The chapter described the approaches taken in collecting the samples and synthesizing the data used in the report. As described in this chapter, two sources of data were used in this research.

The first set consisted of interviews with law enforcement officers and first responder survival trainer and educator. It is difficult to obtain elaborate conclusions without data and information obtained directly from people who are in the frontline when dealing with mass shootings. The information obtained from the interviewees aided in the understanding of the problem, the underlying perceptions, and ideas that can help deal with the issue. The researcher contacted highly placed individuals who can influence the outcome of future incidents. The interview method with the participants was conducted either face-to-face or via skype and will use unstructured or non-standardized interviews. The interview questions were open-ended and applied indirect questions in an effort to obtain all required information about mass shootings in America and the role of social media in such incidents.

The second source of data were four case studies for the researcher to further observe the extent of the problem. These cases were presented as supplementary sources of information for the research. The information derived from the case studies were useful in that it served as strong analysis material to understand the scope of mass shootings. The chapter also addressed the measures to increase reliability and validity as it presented the issues of ethical concern in the research that relates to human interactions. To respond to any concerns, the interviews addressed all ethical considerations.

The study also included the limitations of the methods used and how other studies can fill the gap. The following chapter presents the analysis of results as well as an examination of the findings after the conclusion of the research. The aim of the next chapter is to present data and analysis of results relative to the reviewed literature in Chapter 2. Chapter 4 attempted to present

data in a logical and clear manner so that the findings can be easily understood and exploited in further studies. The chapter included a comprehensive discussion of the results.

Chapter 4: Results

Introduction

This chapter presents the results of this study undertaken for the purpose of elucidating the role of social media platforms in the dissemination of xenophobic ideologies and suicide contagion. The research recorded subjective knowledge, guided by a theory-building approach through which I sought to explain why mass shooters are turning to social media. Given that the study was qualitative with minimal descriptive quantitative data, this chapter presents predominantly qualitative results and some descriptive percentage distribution of the nodes identified from the seven qualitative interview files inputted to NVivo Pro software. Data analysis electronically went over the interview responses from the seven subjects of the study.

The percentages indicated for the parent and child nodes refer to the fraction of references to each node in the seven interview documents for the specific research questions in the first four parent nodes. However, for the fifth parent node, the percentages pertain to allusions to each specified incident from all seven interview response documents. The results are organized using the four parent nodes names for each of the interview questions: Social Media Link to Mass Shootings, Government Agencies: Solution, Social Media and Law Enforcement in Preventing Future Crimes, Facebook Role for Future Peace and Unity. Additionally, a fifth parent node was designated for the Specific Incidents cited by the subjects in their responses to all four interview questions.

Sample and Setting

The subjects of the study (referred to by pseudonyms in this document) were seven experts who were distinguished authorities on mass shootings in their respective spheres. *Alpha*

was a retired police chief, and *Beta* was a security expert involved with the federal government. *Delta* was a consultant-educator in the field of law enforcement, and *Gamma* was a retired FBI agent. *Epsilon* and *Eta* were both police officers; the former was a sergeant, whereas the latter was a major. *Zeta* was a mass shooting survival expert trainer and program developer. The settings of the interviews were the respective offices of the subjects, who were interviewed online via Skype. The main issue with these settings was Internet connectivity. Sometimes, the interviews were interrupted when the wi-fi connection was disrupted.

Social Media Link to Mass Shootings

There were at least five ways in which the respondents viewed the link between social media and mass shootings. In this section, I discuss perceptions of the social media–mass shootings link and generalize the qualitative findings of the study to consolidate the first piece of the puzzle that addresses the research question about the role that social media plays in influencing the actions of the perpetrators of mass shootings in the United States. To anonymize the participants, codenames using the Greek alphabet (i.e., *Alpha*, *Beta*, etc.) were designated and italicized in the documentation for ease of locating shorter quotes, which were not separated from paragraphs as text blocks.

Enablers

The influence of social media in mass shootings that surfaced from the interviews includes both positive and negative aspects of enablement. The child nodes engendered from Child Node 1—Enablers—include bystanders and victims, confidants, political rhetoric, and

social media as platforms, which are negative links. Meanwhile, the public-at-large, in terms of upstanders, is a positive link that can facilitate solutions to mass shootings.

Bystanders and victims. This subtheme was covered in 14% of the responses for the first interview question. The interview subjects believed that social media gives way for enablers such as bystanders or victims to document the perpetrators' few seconds or minutes of fame. There are at least five ways by which the respondents viewed social media as an enabler, either directly or indirectly, of mass shootings. A retired police officer, who is codenamed *Alpha* in this study, provided several instances in which bystanders used social media to publish or stream mass shootings as they happened. *Alpha* noted how people, even the shooting victims themselves, "were laying on the ground actively being shot at but were still videoing the whole thing". This may lend credence to the third-person effect in communication as posited by Davison in 1983 (as cited in Koslow et al., 2014), which was discussed in the literature review.

In regard to Davison's theory of third-person effect in communication, bystanders or victims tend to cover terror incidents as citizen journalists, through social media, believing that delivering the news to other people takes paramount importance. It can, therefore, be stated that although the theory of the third-person effect in communication did not gain significant backing when it was published in the 1980s, Davison's position now takes center stage in an information-driven society. As defined by Martin (2017) based on his 1995 work, today's information society is one "in which the quality of life, as well as prospects for social change and economic development, depend increasingly upon information and its exploitation ... through a wide range of media" (p. 3). The advent of social media via smartphones and tablets facilitated its various

forms of influence on mass shootings, as tackled in the literature review, particularly in the work of Tierney (2014).

Confidants. Another angle on the impact of social media as enablers in mass shootings may also be evaluated on the perpetrators' end. This subtheme was covered 29% in the responses for the first interview question. Some shooters tend to "leak" their premeditated shooting impulses on social media in search for unknown confidants among like-minded individuals. If they do not have friends with whom they can anchor trusting relationships, mass shooting perpetrators may turn to social media in search of social capital for support. Amati, Meggiolaro, Rivellini, and Zaccarin (2018) argued that social relationships provide emotional resources, among other benefits, to an individual. Mass shooting "leaks" shared via social media may, therefore, be more than just a compulsion to trigger "likes". *Alpha* suggested and may offer a validation of support from unknown confidants who share the same thoughts and behavior.

Another participant from a government authority on the theme of this dissertation, codenamed *Beta*, implied that social media posts tend to inspire or indeed validate "violent tendencies that may be present within just affected mentally unwell individuals ... who are seeking a sense of social commitment, connection, and something that gives them a sense of life". Thus, mass shooters, in some way, take to social media, where the latter serve as their virtual confidant, and "post about their grievance ... [which often] reflects their intention to come in and attack" indirectly. There are also incidents like one shared by *Alpha*, in which a Facebook post directly stated that the user "was going to do something very bad at school this morning". In this respect, apart from the typical concept of a confidant as someone with whom a

person can talk intimately about some idea or problem, the context of social media within confidant relationships “carries a strong suggestion of reactive support” (Dean & Tausig, 2013, p. 122). Therefore, the construct of the confidant relationship in terms of social media in mass shootings may be as simple as a mere “like” or a positive comment on a post about a violent action about to happen in the very near future.

Political rhetoric. This sub-theme was covered in 29% of the responses for the first interview question. *Beta* also emphasized political rhetoric about non-White people as “undesirables” because they are often perceived to “weaken the economy and weaken the safety of this country”. Such statements by politicians, which are widely circulated around the Internet through social media sites, generate opposite impact among people. For some people, even among non-Caucasian populations, such political rhetoric boosts the politicians’ reputations of commitment to public safety, and the political punch “inspires people”, as *Alpha* emphasized. However, among people who have mental afflictions, such political rhetoric may motivate them into commission of violent acts, such as mass shooting of innocent people. *Beta* also confided that some politicians who have engaged in similarly themed rhetoric have been killed by the same kind of people who perpetrate mass shootings. One of the participants, a retired FBI agent, codenamed *Gamma* in this dissertation, decried how “the president has created a social culture of division and not inclusion” through his political rhetoric.

Public at large. This subtheme was covered in 43% of the responses for the first interview question and was the second most dominant subtheme under the child node Enablers. One of the participants, codenamed *Delta*, who was a distinguished consultant-educator,

perceived social media positively, being the only one who did so in the light of mass shootings. For *Delta*, social media can enable solutions to mass shootings by way of prevention. As a community, social media can help create and nurture an upstander culture, *Delta* believed that “the biggest benefit of potentially leveraging an organization like Facebook or Twitter would be starting in that culture (i.e., upstander culture)”. *Upstander* is a rather new term, surfacing during the new millennium, which was first mentioned by former U.S. ambassador to the UN Samantha Power, that “gives recognition and approval to people who stand up for their beliefs, even if they are alone; it means not being a bystander” (Minow, 2017, p. 815). In contrast, a *bystander* in the context of social media was defined in Minow (2017) as “a person who is near but does not take any part in what is happening” (p. 815). This link between social media and mass shooting is mediated by a shift in focus from merely online voyeurs in mass shootings to “actually being upstanders who are part of the solution rather than part of the problem”, *Delta* explained. His positive view of the social media–mass shooting link was, therefore, a well-supported discrepant case, although strictly only in the context of an upstander.

Meanwhile, based on the interview with another participant, a police sergeant and concurrent public information officer of a police department who was codenamed *Epsilon* in this study, the public, as an enabler of the social media–mass shooting link, is perceived to consist of inherently responsible consumers of information sourced from social media. *Epsilon* cautioned the public “not to rush to judgment on issues or articles sparking false outrage and division before really finding out all the facts”. Well-informed public consumers of social media may, therefore, be positive enablers of unity, instead of enablers of mass-shooting incidents. *Epsilon*'s

take on the social media–mass shooting link was thus predicated on the quality of social media information retrieved and/or the savvy of the public to filter out false information.

However, *Beta* viewed the association between social media and mass shootings as an enabler in terms of the public at large as social media becoming their own beast. *Beta* supported his beast view of social media on the undeniable reality that “it is so widely used for various reasons; many citizens have grown to become co-dependent on it”. This suggests that with its many benefits to man, social media also bring a number of disadvantages, as discussed in Ryan, Allen, Gray, and McNerney (2017). In regard to the pros and cons of social media, particularly the negative implications of social media use in connection with mass shootings, the findings of this study may facilitate research that establishes whether the positive outcomes of social media usage significantly outweigh the negative ones.

Platform of information dissemination. This subtheme was covered in 100% of the responses for the first interview question and was the most dominant subtheme under the child node Enablers. There were a number of ways in which the expert informants of this study perceived the link between social media and mass shootings as a platform of information dissemination. *Zeta*, a survival trainer for active shooting and other acts of terrorism, attributed the “pull” information flow in social media as a facilitator of information gathering about mass shootings, active shooters, and other data about acts of terrorism. Imagine how such information affects mentally unstable and unwell people, who have the proclivity to engage in acts of violence: “with social media, it’s being pushed to us, it’s being fed to us”. Additionally, *Zeta* decried how social media such as Facebook espouse a political agenda and “block conservative

viewpoints.” This brings about ill feelings among some social media users because as a democratic community, Facebook has “got to do the same thing on any side of any line to make it fair”.

Herostratus syndrome. Meanwhile, *Epsilon* cited three real-life cases where the *modus operandi* of mass shooters had evolved with advancing technology. To gain fame in notoriety, the Virginia Tech shooter videotaped his acts of violence and sent these tapes to major television outlets through traditional post mail. Four years after, the Roanoke, Virginia shooter recorded his shooting spree on his phone and posted it online. With social media, perpetrators of mass shootings now take control of incident dissemination as twisted citizen journalists. This is an illustration of the *Herostratus syndrome*, described in an eBook by Borowitz as when “a criminal feels an enhancement of power in the form of self-glorification (the achievement of name recognition) or self-aggrandizement (the demonstration of capacity for destruction through the accomplishment of a flaunting act that will live in infamy)” (as cited in Krajicek, 2019, in the chapter You’ll All Know Who I Am under the heading, Ancient Attention-Seeker). The eponym of the term was an obscure Greek named Herostratus, who set the Temple of Artemis on fire in 356 BC just to gain renown through notoriety (Krajicek, 2019). Symphonic or group terrorism was another theme under the parent node Social Media Links to Mass Shooting. It was covered in 29% of the responses for the first interview question.

About a month ago (i.e., at the time of this interview), the mosque shooter in Christchurch, New Zealand made his independent broadcast of his terroristic attack via a livestream over social media as it happened. *Epsilon* synthesized his response to the question by

making the following statement about the effect of social media in mass shootings: “if the motive of the shooting is notoriety, the shooter has much greater speed towards notoriety and much greater control over notoriety than in the past generations. *Epsilon* named the aforementioned generalization as an operationalization of the hyperaccelerated Herostratus effect. *Epsilon* wrote about this topic in an article published online. *Gamma* provided support for *Epsilon*’s argument, indicating that “social media has become a sounding board for mass murders ... social media platforms has been one of the driving forces behind the steady stream of continued mass shootings”. *Beta* confirmed the hyperaccelerated Herostratus effect, stating that “it’s easier to share ... in the online environment”.

Group–Symphonic Terrorism

Symphonic or group terrorism was another theme under the parent node Social Media Links to Mass Shooting. It was covered in 29% of the responses for the first interview question. *Delta* looked at the social media–mass shootings link in terms of symphonic or group terrorism. He cited the case of the Mumbai shootings, where

Someone outside the tactical environment who’s actually guiding the operation remotely. ... [Then the mass shooters broke up] into five, two-men team and they attack [sic] five different locations simultaneously ... the Taj Mahal Hotel ... Oberoi Trident Hotel, the train station, a youth hostel ... [and] a Jewish community center. [However,] ... the guy [who’s] ... orchestrating this ... [were] being coordinated by ... an American guy from Chicago and David Hedley who [is] ... sitting in a hotel room in Pakistan watching CNN on the news. To cut the story short, the three-day Mumbai siege was carried out through a

symphonic act of terrorism by the leader calling the shots by “talking on a cell phone ... giving them [i.e., the shooters} information on what he is hearing in the media”.

With the above discussion, *Delta* brought to the fore the possibility of copycat criminals and the contagion effect. Although he did not elaborate on the connection of the two issues to social media and mass shootings, the interview with *Beta* implicitly provided support for the contagion effect that explains somehow the connection of mass shootings to social media: “shooters, regardless of motive, tend to spend a lot of time online, viewing materials that’s been posted by terrorist groups, extremist organizations – materials that are illustrative of mass shootings. As discussed in the literature review, media contagion in the context of mass shootings suggests that all of these violent incidents exude an effect on potential shooters, creating an idea that their criminal act will be rewarded by fame, as Philips (1986) explained. A more recent study validated through empirical evidence that the contagion effect in mass media played a big role in previous shooting incidents and hinted that shooting news reported via various mass media spreads more easily through social media (Johnston & Joy, 2016).

Individual or Personal

Anonymity. Social media are also linked to mass shootings by the individual or personal motives or agendas of their users. This subtheme was covered in 29% of the responses for the first interview question. The anonymity of social media appears to drive various motives among a diverse group of users. As *Zeta* explained, social media “makes it easy for people to sit behind a keyboard and affect other people’s lives”. The effect is experienced both indirectly and directly. Hiding behind avatars and fictitious profiles, “some people make fun of, ... kind of start

the riot mentality of getting people ... started and worked up about certain things”. Such communication in social media makes “a lot of people ... younger people especially ... [feel] marginalized”.

Bullying and threats. This sub-theme was covered in 29% of the responses for the first interview question. Another participant, a police major, codenamed in this study as *Eta*, also contributed to the conversation on anonymity in social media in a separate interview in terms of a choice between an unknown person with grievance about some hate speech or political rhetoric, or becoming famous empowered, emboldened to address their grievance through social media. Some youth who felt shamed or marginalized, especially those struggling with hormones and social pressures, get easily “reached and affected in a negative way, which could result in ... more school shootings”. Other than hate speech or political rhetoric, social media fires up mass shooting instincts via bullying and threats, according to *Beta*.

Citizen journalism. This sub-theme was covered in 29% of the responses for the first interview question. *Delta* also highlighted that media made mass shooters into citizen journalists like in the case of Virginia Tech, where the shooter Cho mailed his videotaped shooting activity to major TV networks. With the advent of social media, the Roanoke Virginia shooter never needed TV or radio to live up to his citizen journalist act. He took control and posted the shooting of the video-recorded using his phone online. Similarly, the Christchurch, New Zealand shooter turned into an instant citizen journalist with his live streaming of the dastardly terror attack. Quoting *Epsilon*, with the advances in communication and media technology, such as the

rise of social media platforms, “we are in an age where anyone and everyone is suddenly their own ‘media outlet’”.

Codependence. This sub-theme was covered in 14% of the responses for the first interview question. The phenomenal growth in social media usage, transformed users to be co-dependent on it. But with its astounding influence on practically everyone, *Beta* decried how “social media platforms have become their own beast”. Social media made way for interconnecting people who would not have the chance to come across each other prior to social media – even people who endorse ideas calling for “acts of violence ... or hateful violent extremist rhetoric”.

Contagion effect and copycat shootings. This sub-theme was covered in 43% of the responses for the first interview question and is the third most referenced individual or personal agenda among users, which link social media with mass shootings. There is now overwhelming evidence from the interviews that social media affects mass shootings through dissemination of too much information that allows like-minded individuals, like potential mass shooters, to study the act of previous mass shootings. For mentally unstable individuals who are inclined to engage in acts of violence, information on mass shootings motivate them to be copycats. The process that facilitate such frame of thinking is the contagion effect, as narrated by *Beta*, whose line of work and organization is focused on mass shooters, among other society’s security threats. Social media, in this case, turns into platforms that facilitate mass shooting attack planning and further spreads the contagion among the potential mass shooters.

Disgruntlement/revenge and hate/xenophobic ideology. Another pair of personal agenda of mass-shooters, which is affected by social media, are revenge among disgruntled individual's *vis a vis* hate/xenophobic ideology. Disgruntlement/revenge is covered in 14%, whereas hate/xenophobic ideology is covered in 29% of the responses in the first interview question. These two are from separate child nodes, but these issues are intertwined as far as social media usage is concerned. Thus, the discussion of these issues from the interviews were integrated in the discussion.

As pointed out by *Delta*, disgruntlement/revenge was the case with the Roanoke, Virginia shooter, a terminated employee, who exacted his revenge among employees of the company which was the site of the shooting. Meanwhile, the Virginia Tech shooter was disgruntled possibly with school mates, appeared to have aversion for hedonism and Christianity. The shooter also appeared to have nursed unspecified grievances with some people. Thus, aside from the shooter's mental condition, he was ideologically motivated (based on his aversion to hedonism and Christianity). *Eta* mentioned that the Norway and Christchurch, New Zealand shooters hated Jewish people. Participants, *Beta* and *Eta* underscored hate and xenophobic ideology as one of different personal/individual agenda linking social media with mass shootings in separate interviews.

Illegal activities and justified rage. These two are separate child nodes under the individual or personal agenda of mass-shooters or maybe would-be mass-shooters, which can be linked to social media. Each of these child nodes were covered 14% in the responses for the first interview question. Profiling of mass shooters revealed, according to *Beta*, that illegal activities

are also strong mediators of the link between social media and mass shooters. Such illegal activities, as identified by *Beta*, are drug sales negotiated through crypto-currencies, gang membership, and support for extremist organizations. Meanwhile, social media also influence mass shootings as an avenue with which individuals who perpetrated mass shootings have justified their rage. As *Eta* explained, outside of social media, mass shooters are “not getting the responses they think they deserve”. They get the answers they wanted from social media, and such responses empower them to commit acts of violence.

Notoriety or celebrity status. This sub-theme is covered in 86% of the responses in the first interview question and is the most dominant sub-theme under the child node, Individual or Personal motives that connect social media with mass-shooters. Mass shootings are also influenced by social media because the latter feeds the perpetrators’ penchant for notoriety or celebrity status. None of the now, globally renowned mass shooters were famous before their act of violence were committed. As depicted through the words of Knoll and Annas (2016), rather than intense shame, people who commit heinous crimes are often accorded “an aura of undeserved notoriety and infamy” (p. 93). Considering that the previous mass shooting incidents were quite dramatic, often highly publicized as time went by, and in some instances theatrical, the mass shooters were believed to be communicating a need for recognition or validation from an audience. To this, Knoll and Annas (2016) posited that: “the Internet and social media have amplified the high value placed on celebrity and the Western cultural script of the tragic antihero” (p. 94). Thus, although the association between social media and mass shootings are more complicated than a newly found cultural antihero, there is reasonable justification for the

link under study. This was expressed rather very clearly in the interview with *Epsilon*, who opined that: “social media has an impact on these incidents because these “active killers” often want to have some sort of notoriety, and these stories are spread all over the world via social media”.

Predispose condition—mental health. Finally, an individual may not have any comprehensible agenda to commit mass murder, but a predisposed condition—mental health. This sub-theme is covered in 86% of the responses in the first interview question and is the second most dominant sub-theme under Individual or Personal motives that connect social media with mass-shooters. Four of the seven expert-participants of the study mentioned mental condition in the social media–mass shooting link. Their typical observation was that those with mental health issues tend to get more affected through social media. *Beta*, *Delta*, *Gamma*, and *Zeta* all emphasized the vulnerability of individuals with mental conditions to the influence of social media, and manifest proclivity to its use before, after, or during the horrible mass shootings they committed.

Technology

The fourth child note under the Question 1 parent node is Technology. In other words, another way of by which social media influences mass shootings is through technology.

Access to information and knowledge. Technology provides quick and easy access to information and knowledge. This sub-theme is covered in 57% of the responses in the first interview question and is the most popular sub-theme under the child node, Technology.

Information is being pushed to social media consumers for their specific intents and purposes,

said *Zeta*. In fact, social media platforms aim to maximize their targeted influence on social networks (Zhou & Chen, 2016). *Delta* noted that the Virginia Tech shooter (Cho) studied his mass shooting target site. The Oslo, Norway shooter (Breivik) studied Cho and the Columbine shootings. The Newtown, Connecticut shooter (Lanza) studied a range of methods online. Mastery of their mass shooting plans were facilitated by access to information through technology. *Beta*, *Delta*, *Eta*, and *Gamma* all contributed to the conversation on access to information as the link between social media and mass shootings.

Covert action and handhelds. These are two separate child nodes that were combined because they are related in some way, as is revealed in this discussion. Covert action was referenced in 14%, whereas handhelds were referenced in 29% of the responses in the first interview question. Tactical operations against mass shootings in progress are hampered by social media, as *Delta* explained, because of the various technologies that do not permit a more covert action by law enforcement. Handhelds also enabled mass shootings to reach an audience through social media. Moreover, vulnerable social media users can also be misinformed through fake news circulated on social media. Thus, handhelds aid not just in motivating mass shootings, but in making notoriety an acceptable manner to gain recognition. Tactical communications among the perpetrators of mass shootings are also aided through social media. The unfortunate reality is that while tactical operations of the authorities do not remain covert, the perpetrators are able to maintain tactical communication in carrying out the shootings.

Government Agencies: Solutions

This subsection tackles solutions to mass shootings implemented by government agencies and interventions proposed or suggested by the participants. The solutions are under parent node B, which generated a sampling of government actions to prevent mass shootings, as well as issues cited in the interviews, as child nodes. Meanwhile, child nodes under government action are actionable intelligence, the Electronic Frontier Foundation, the FBI Community guide, legislations, meetings, police trainings and restriction of access during the SF BART riots. Among the child nodes under issues are constitutional rights, *Incels*, law enforcement issues, media incitement, private industry, public communication towers, public safety, social contagion, social responsibility issues, and suicides after shooting incident

Government Action: Examples

This sub-section included literature, which was not tackled in Chapter 2, but were cited by the participants during the interview. An extension of the literature review was, therefore, included to serve as a primer for some of the government action identified to aid the discussion, and the drawing of conclusions later. The literature interspersed with references in the interview should also serve as a primer for readers of this dissertation, given that some of the government action cited by the participants were very specific.

Actionable intelligence. This sub-theme was referenced in 86% of the responses in the second interview question and is the most dominant illustration of government action to combat mass shootings. As defined in Pearson and Watson (2016):

Actionable Intelligence can be defined in several ways such as ‘having the necessary information immediately available in order to deal with the situation at hand, ...[or] intelligence that can be acted upon within a 12-to-72-hour period of time’. No matter which definition is used, the meaning is the same, useful information that can be quickly acted upon (p. 5).

In a way, social media aids the government’s efforts derived from actionable intelligence. Conversation or promotion of security threats, like explicit implications of mass shooting, can now be more easily monitored and detected through social media technologies. As *Zeta* remarked: “Hopefully, use [of] that information to at least examine these organizations closely enough that they [i.e., the FBI] will have a little bit of advantage when it comes to averting something or seeing that it’s coming”. A real-life example of successful government action via actionable intelligence was shared by *Epsilon*, with a shutdown of mobile service carrier towers to disrupt communication among the anarchist criminal elements coordinating the riots at the San Francisco (SF) bay area rapid transportation (BART) system with the use of social media platforms.

Epsilon also explained that social media provides support for actionable intelligence via a detect and deter aspect, just by having a voice that counterbalances or neutralizes the xenophobic messages by terrorist/extremist elements. Additionally, technology engenders the development predictive analytic tools capable of “scrubbing open source data for dangerous behavior”. Meanwhile, *Beta* indicated that actionable intelligence on social media postings of grievance and/or ideological causes are now embedded in the FBI’s behavioral indicators of security

threats to society. While police work traditionally includes tailing criminal elements physically to deter criminal activity, the influx of technology mandates policing the online behavior of social media users to proactively prevent and thwart mass shootings and other terrorist activities.

Electronic Frontier Foundation (EFF). This sub-theme was referenced in 14% of the responses in the second interview question. EFF is a non-profit focused on the defense of civil liberties in the context of the digital world, the Internet. EFF envisions that protection of access to developing technology is essential to maintain freedom for all users of digital technology. EFF keeps its mission operational through grassroots activism, impact litigation, policy analysis, and technology development. The organization explicitly described their activities as “efforts to defend free speech online, fight illegal surveillance [researcher provided the emphasis], advocate for users and innovators, and support freedom-enhancing technologies (EFF, 2019). While the mission and vision of the EFF do sound noble for ordinary consumers of information on the Internet and social media, it must also be factored into consideration that “in gathering intelligence on terrorist related activity, statutory powers allowing covert surveillance is a vital investigatory tool” (Lowe, 2014, p. 3).

Delta's interview remarks insinuating that EFF may be an interesting angle about government action on mass shootings prompted an introductory literature on EFF. His sentiment may not be very clear about whether he supports or opposes the EFF efforts. However, his opinion was that EFF's position about the concerned authorities had been quite over-researched, and such efforts were not effective. This, according to Delta “made people who are anti-government even more permanently anti-government and also created a risk for public safety”.

There is a great deal of wisdom in this observation because it seems ironic that the safety of the people against terrorist threats would be more difficult to ensure if the people entertain thoughts that the government is the enemy. *Delta* justified the importance of more stringent government surveillance in the light of public policy being quite unsuccessful in preventing mass shootings. He, however cautioned that there should be utmost clarity “about how much and in what ways the government can intervene in ... private communication platforms”.

The FBI community guide. This sub-theme was referenced in 14% of the responses in the second interview question. *Delta* endorsed the FBI community guide, *Making Prevention a Reality*, a primer on threat assessment and management principles authored by members of the FBI Behavioral Analysis Unit, which discusses, in sufficient detail, how the concerned authorities can identify, evaluate, and handle the risk of future, planned violence. *Delta* described the material to contain “very good guidelines to communities, organizations, and school systems about preventing mass violence”. This guide discusses, among others, how bystanders can really function as force multipliers for threat management by being as an upstander: “conveying what he knows, observes, or fears may happen” (Burton et al., 2017, p. 12). The upstander concept had earlier been discussed under the enabler child node.

Legislation. Earlier, *Delta* mentioned that government efforts against planned violence in terms of public policy were not very successful. In terms of legislation, which was referenced in 29% of the responses in the second interview question, *Zeta* hinted that legislation, too, was not a very effective course of action against mass violence. This was how the researcher interpreted his statement that legislation had so far went after Facebook and Mark Zuckerberg for politically

driven information and possible privacy incursions aimed at amassing profits. Nothing more had been mentioned about this by Zeta, which could suggest that nothing interesting has happened, so far. Meanwhile, *Epsilon* directed the conversation on planned mass violence by differentiating between freedom of speech and hate crimes. *Epsilon* also explained legislative solutions “to address actual threats that are made via social media as opposed to someone stating an opinion using freedom of speech”.

However, as reported in the cybersecurity section of Forbes, in the very near future, a landmark legislation may be enacted to outlaw the encryption scheme used by messaging applications WhatsApp, iMessage, etc. (Doffman, 2019). These messaging apps utilize end-to-end encryption to bolster user privacy. As the name of the encryption implies:

End-to-end encryption provides security from one end of a transmission to the other ... [where] the encryption can be applied between the user and the host by a hardware device ... [or] the encryption can be done by software running on the host computer. In either case, the encryption is performed at the highest level ... [Thus,] end-to-end encryption is more flexible and can be used selectively” (Pfleeger & Pfleeger, 2012, p. 450, 452).

However, given that as time goes by, instant messaging has been emerging as an increasingly dominant mode of communication, end-to-end encrypted messages are, or will be, completely inaccessible to law enforcement for surveillance purposes (Lewis, Zheng, & Carter, 2017; Doffman, 2019). Based on the literature and inputs from the interviews, even terrorist groups are benefiting from the privacy features of instant messaging. However, authorities are unable to intercept instant messaging applications for surveillance. Prevention efforts are stunted

because criminal elements are one step ahead of the FBI with technological barriers going against the latter. Nevertheless, a lockdown on the so-called privacy and security features of messaging apps, via legislation, will heat up the ongoing debate on data security and efforts for the prevention of mass shootings and other planned violence by terrorist elements (Doffman, 2019)

Meetings. This sub-theme was referenced in 14% of the responses in the second interview question. *Delta* explained very clearly that government action to deal with misuse and abuse of social media through dissemination of hate and xenophobic ideologies is quite limited for private entities such as Facebook and Twitter. He said: “it’s pretty difficult to kind of censor or interfere with Facebook or Twitter ... this problem where the government ... you could see it being somewhat ineffective and stifled”. So far, the government has convened with these social media platform representatives to discuss such issues as hate messages and xenophobic ideologies.

The most recent of such meetings was just over the past few weeks - the National Security Council meeting on the law enforcement encryption challenge as mentioned in Doffman (2019). However, as reported by CNBC (2019) from Reuters, the coming White House social media summit, where President Trump will speak, had not invited social media giants, Facebook, Twitter, and YouTube. The summit will gather together digital leaders in a robust conversation about the online environment and its opportunities and challenges (CNBC-Reuters, 2019; Gaus, 2019).

Police training. This sub-theme was referenced in 14% of the responses in the second interview question. During the interviews, only *Beta* came up with police training as an example of a solution used by police and other authorities against mass shootings. It was interesting that *Beta*, who hails from a federal law enforcement agency, specified that police had to be trained to “look for suspicious behavior in the physical world and empower them through technology and training to identify behaviors that exist in the online world”. The essence of training in the physical and digital realms of police work against mass shootings comprises of preventive solutions, which somehow relate to the expertise of the participants.

However, training is also extremely important to equip police and other government authorities with skills to handle mass shootings as they happen, meaning that tactical training in the ‘battlefield’ is very important. This battlefield is quite extensive, as mass shootings can happen anywhere there are many people. So far, mass shootings have frequently targeted schools, and churches. Literature from Blair, Nichols, Burns, and Curnutt (2016) near the turn of the century described how police on the scene of the Columbine shooting in 1999 reacted: “many were shocked to see uniformed officers crouched down behind their cars, weapons in hand but apparently frozen and doing nothing to intervene on behalf of the innocent children trapped inside” (pp. 65-66). It is important to crosscheck the time setting of the shooting and the standard policy then: “contain and hold for specialized teams to enter and solve the problem” (p. 66). Thus, Blair et al. (2016) argued that the “only one thing that could address the problem of public mass murder: empower, equip, and train those first responding officers on scene to execute an immediate rapid response” (p. 66).

So far under the broader initiative dubbed as ‘Now is the Time’, the FBI was placed in charge of training law enforcement personnel and first responders to apprise them of the correct response protocol for active shooter incidents. These protocols are consistent across the US. Additionally, under the Advanced Law Enforcement Response Training (ALERRT) program, FBI tactical instructors attended a 40-hour training course and skills training on the ALERRT protocols (FBI, 2016).

There were also two-day conferences to discuss and share lessons learned from prior shootings and best practices to adopt in tactical operations against mass shooting situations. Among the FBI field offices, tabletop exercises have also become staple skills training avenues on response to and recovery from mass shooting incidents (FBI, 2016). Thus, as far as government solutions to address the role of social media in aiding mass shooting prior to or during an actual mass violence situation, the two-day conference meets sharing lessons learned from actual shootings and tabletop exercises are the best examples. These two aforementioned training elements are where and how behavioral analysis skills to train advanced policing of possible terrorist behavior prior to the actual act of violence are honed.

Restriction of access during SF BART riots. This sub-theme was referenced in 14% of the responses in the second interview question. *Delta* articulated very frankly that government authorities had not been very successful in crafting solutions to deter mass violence aided by social media through the spread of hate messages or xenophobic ideologies. There are constitutionally mandated guarantees for everyone’s right, for example, of free speech. Legislations and policies to suppress such rights cannot be enacted. The interview with *Delta*

offered valuable inputs regarding the complexity of solutions aimed at technology-related enforcement problems, not just in the area of right to free speech and the right of privacy.

One example of the government solution *Delta* shared was to quash communication among anarchists fomenting riots at the SF BART. To *Delta*, the solution was a “really powerful example of like the government trying to step in and stop this [i.e., the anarchist-driven riots fueled by social media] through mechanical means because they really haven’t had an effective way of doing it in terms of public policy”. However, the solution backfired on law enforcement. When the government shut down communications via mobile carrier towers covering the area, law enforcement blocked riot organizer communications via cellular phones or social media. However, government authorities were also blinded from monitoring and following the anarchist-instigators. Consequently, 911 calls were also unavailable. This revelation from *Delta* revealed the magnitude and complexity of technology solutions to planned mass violence.

Issues

Constitutional rights and social responsibility. Constitutional rights were referenced in 100% or all the subjects’ responses in the second interview question and comprise the dominant issue with respect to government action to combat mass shootings. Social responsibility, which is a separate child node from constitutional rights, was referenced in 43% or all the subjects’ responses in the second interview question and comprises the third most cited issue with respect to government action to combat mass shootings in the interviews. These two child notes were combined in the discussion because, as will be reflected in the discussion below, there are

implications of social responsibility that can be invoked against constitutional rights for stronger and more effective government action.

Constitutional rights, in the context of this section and the dissertation, mainly refers to the first and fourth amendments, where the first protects free speech and/or the press, and the fourth, the right to privacy. *Zeta* categorically stated that: “government agencies have [not] even begun to address this issue [i.e., misuse of social media in disseminating hate message and xenophobic ideologies] in part because it would violate the first amendment ... their [i.e., the government] hands are tied”. The other five participants, *Alpha*, *Beta*, *Epsilon*, *Eta*, and *Gamma*, echoed the same apprehension about government solutions that run counter to the first and the fourth amendments. Consequently, *Gamma* argued that while they may be solutions, twin complications are revealed:

The only way I can see the government becoming involved, is to assemble a committee to potentially discuss how the use of their applications and accessibility may be the cause for the increasing number of mass shootings. Even then, this would be crossing a legal boundary since the government would potentially be accused of infringing on private businesses and their decision as a private entity. This is a tricky one, it can be done however, there are a lot of legal rights in place for citizens.

The interviews revealed the possibility of invoking social responsibility among social media applications to relax a bit on their security and privacy features in aid of law enforcement efforts to carry out surveillance on targeted possible mass shooters and/or organizers of planned mass violence. As *Delta* intimated, the social responsibility argument may be a long shot: “and

you're hard pressed to force these companies in terms of social responsibilities". However, the debate can be redirected to some calculated repercussions, such as users falling out on Facebook because it is "fanning the flames of this sort of hatred". In this regard, *Delta* hinted about measures that deliberately lead to a change of public opinion about Facebook. Law enforcement can take advantage of this angle to convince the key social media apps to care about the proliferation of so much hate messages.

***Incel* and social contagion.** Although the child nodes for social contagion and *Incel* were separate in the automated qualitative analysis using Nvivo, it is advantageous to discuss these child nodes together because *Incel* is a timely and alarming example of social contagion. *Incel* was referenced in 14% of the responses for the second research question, whereas social contagion was referenced 29%.

As discussed in Hodas and Lerman (2014), a contagion is traditionally likened to the manner in which disease spreads. In social contagion, information is spread via social media, but "users actively seek out information and consciously decide to propagate it" (p. 1). In regard of the foregoing, in social contagion, spread of information happens deliberately, whereas in disease contagion, the carriers may not actually be conscious that they are spreading an infection.

Within the context of the possible social media-planned violence/planned mass violence link, social contagion may be explained in terms of the independent cascade model. This model assumes that:

Each exposure of a healthy (naïve) person by an infected (informed) friend leads to an independent chance of information transmission. Therefore, the probability that a healthy

individual becomes infected increases monotonically with the number of exposures, potentially causing a global epidemic involving a substantial fraction of the population (Hodas & Lerner, 2014, p. 1).

A case in point emphasized by *Delta* is *Incel*, an online subculture so named as a shorthand for involuntary celibates. *Delta* directed this researcher/interviewer to a scholarly article on cybersecurity, which now alarms law enforcement agencies because the group had been tagged in connection with a couple of homicides. Arguing that mass murders may arise out of what appear to be random homicides, *Incel* had been identified as a hate group by the Southern Poverty Law Center (Crimando, 2019). The Crimando (2019) March cover story of *Security Management* magazine explained that *Incel* supports male supremacy as an online subculture:

Incel is not simply a form of self-identification, but rather an ideology and self-described movement of disaffected, disconnected, and angry individuals—primarily men—who have found justification for violence against people who seem to have an easy time finding love and acceptance ... Those in the *Incel* [online] community are alone, but now they are alone together, and sharing a hateful message attractive to many, who like Rodger [a mass murderer], harbor fantasies of revenge. To turn a phrase, *the Internet allows them to form a pack of angry, lonely wolves* (Crimando, 2019, p. 33-34).

As *Delta* underscored, the *Incel* social media group “is an environment where you really see the ability that [sic] for this kind of social media ecosystems to fan the flames and just really become an echo chamber for someone who’s on the pathway to violence. So, there might be

something else you'd look out. It's kind of the role of social media and *Incels* in *Incel*-related mass violence". This researcher's take on Crimando's warning about *Incels* is that the social media environment may have hundreds or even thousands of other hate groups lurking in the realm of the digital world and planning for mass murders or other violent crimes. If only these plans can be met proactively by law enforcement, the world will be a safer place to live. If only Facebook, Twitter and all other social media applications can provide more leeway for law enforcement to do a better job without the weight of the first and fourth amendment's hanging on their backs.

Law enforcement issues. A few law enforcement issues were gathered from the interviews about actions implemented by authorities on social media misuse by mass shooters and other violence-prone criminal elements. Such issues were referenced in 57% of the responses in the second interview question and comprise the second most dominant sub-theme under the child node Issues. *Delta* revealed how shutting down cellular towers or public communication towers (a separate child node) around the area covered during tactical operations were somehow successful, but the solution backfired on the law enforcement operatives. This suggests that an action against planned violence facilitated by technology do not successfully work because technology tends to be a double-edged sword.

Beta cited the need for "a legal threshold that would justify additional actions by the police". Posting about hating some guy online is not 'yet' a crime. There are always hints when hate escalates into intent to do harm, like bragging about killing someone online, "burying a bunch of guns", and a series of suspicious actions. However, according to the Office for

Democratic Institutions and Human Rights, the perpetrator does not have to actually feel hate upon the victim of a hate crime. The only requirement to identify as a hate crime is the element of bias motivation, where the perpetrator targeted a victim based on protected characteristics based on ethnicity or race, language, religion or sexual orientation.

Legal thresholds and bias motivation bring about the question about *Incel*-related homicides, where the bias motivation may not necessarily include the opposite gender's ease of finding affection, not actually, sexual orientation. Thus, there are not always hard and fast rules to go by, and behavioral analysis or profiling of future mass murderers would be both cerebral and instinctive. Meanwhile, in the case of end-to-end encryption in social media apps and other privacy and security features and surveillance by law enforcement, constitutionally protected rights make it difficult to strategize and plan against planned mass violence. All participants touched on this issue.

Media incitement. This sub-theme was referenced in 57% of the responses in the second interview question. Based on the interviews, it cannot be helped that the key people who strive to make the world a safer place to live - this study's very own participants (the subjects) - are of the opinion that somehow, there is an element of media incitement for violent tendencies. Such incitements include the proliferation of hate messages, killings by copycat fans of notorious mass murderers, and even the teen suicide fad on social media. The interviews of *Delta* and *Eta* offered significant inputs in this regard.

Private industry. This sub-theme was referenced in 57% of the responses in the second interview question and is tied with law enforcement issues as the second most dominant sub-

theme under Issues. There is also a consensus among the participants about their expected non-cooperation among the developers of social media apps and services with respect to law enforcement actions that may affect the privacy and security of their users. *Alpha*, *Beta*, *Gamma*, and *Zeta* offered various reasons regarding their expectations. *Alpha* indicated that social media app providers will protect their bottom line by “hiding behind the first amendment”. *Beta* and *Gamma* argued that self-policing their own ranks would hamper the capitalistic motives of the social media app providers. Meanwhile, *Zeta* believes that private businesses will not even consider addressing the spread of hate crimes and xenophobic ideologies because as private entities, the government cannot make impositions without a relevant regulation. It is also predicted that any attempt at enacting legislation towards censorship will be heavily challenged by the first and fourth amendments.

Public safety. This sub-theme was referenced in 29% of the responses in the second interview question. *Delta* posited that government action to ensure public safety from planned mass violence is yet ineffective and stifled given the foregoing issues discussed. There was, however, some reassurance from *Gamma* that law enforcement remains actively working “to combat domestic and international terrorism”. The recurring barrier to FBI and police efforts to prevent and fight planned mass violence cited by *Delta* and *Gamma* pertain to the first amendment, and in passing, the fourth amendment, too.

Suicides after shooting incident. The final child node under another child node for issues pertaining to government action to prevent or fight mass shooting, is the series of suicides that take place after shooting incidents. This sub-theme was referenced in 14% of the responses

in the second interview question. To be very clear, the suicides being referred to in this child node is not the mass shooter's suicide, but suicides committed by teens and other fans of the perpetrator. *Eta* looks at the suicides a "a fan tribute killing" to show that they find the act of mass murder a cool deed. Another interpretation offered by *Eta* were PTSD, depression, and fame through notoriety. Then, he justified why law enforcement do not take kindly on news about suicide stories in the aftermath of mass shooting incidents: "We don't want to encourage that behavior".

Social Media and Law Enforcement in Preventing Future Crimes

This section discusses the subjects' responses to the third interview question inquiring whether they believe that information retrieved from social media sites, such as Twitter and Facebook, can help law enforcement to prevent future crimes, and how this would be possible. Two child nodes (themes) surfaced from the interviews: intelligence gathering and issues that may challenge law enforcement efforts grounded on social media information. The child nodes under these recurring themes are discussed.

Intelligence Gathering

This child node, directly under parent node C, do not have any other child nodes or sub-themes below it. As to the utility of social media posts among individuals who may be planning acts of violence, *Zeta* believes that social media sites are potential sources of leads or clues that the FBI can track even without warrant, given that these such hate messages or xenophobic ideologies are posted publicly. Efforts can be targeted to prevent planned mass violence or neutralize the shooters with the advantage of "seeing that it's coming because of those or

promotions [i.e., of a planned violence] that are going on” in social media. *Zeta* was referring to social media posts about hateful and xenophobic material by disturbed individuals.

Eta provided generalized information in response to the question, stating that they do social media research and use analytics to filter information they are after, but eventually such was ruled out to be unconstitutional. Meanwhile, *Delta* offered specifics on how social media can and may facilitate law enforcement efforts in combatting crime, particularly planned mass violence. According to *Delta*, law enforcement agencies also harness advanced technology to take advantage of online information, particularly, social media posts through open source intelligence (OSINT).

Drawing on some background from literature, OSINT itself is not new to law enforcement because it was introduced during World War II (Hassan & Hijazi, 2018). However, what is new was the technology used to retrieve information. OSINT refers to “intelligence that is produced from publicly available information and is collected, exploited, and disseminated in a timely manner to an appropriate audience for the purpose of addressing a specific intelligence requirement (US Department of Defense, as cited in Hassan & Hijazi, 2018, p. 2). The procedure in searching OSINT, especially online data, which is not properly protected, may retrieve classified information, which is actually non-open source intelligence (NOSINT). Nevertheless, OSINT does not make a distinction in terms of legal accessibility (Hassan & Hijazi, 2018).

In an online article written by Faulk (2018) for the intelligence and GIS software development information site, Quadius, law enforcement does not need to literally ‘pound the pavement’ to find evidence nowadays. With OSINT and artificial intelligence (AI), there is a big

chance that reports can facilitate apprehension of criminals and mass shooters even before they actually commit acts of violence. From the interview, *Delta* directed this researcher's attention to predictive analytics via algorithms searching "Internet and social media traffic for keywords that would have to do with things like violence and crime". Such algorithms, continued *Delta*, "were able to give reports ... to law enforcement and other agencies about ... either individuals or groups where there seem to be a spike in the risk of ... workplace violence, school violence, xenophobic violence or hate crimes". Another way by which law enforcement can use social media to combat hate crimes and xenophobic ideologies, which may foment acts of violence, is through the proactive use of these same avenues to post more pro-social content and neutralize the hate messages and xenophobic ideologies.

An example of such technology from literature is *ShotSpotter*, which utilizes smart city infrastructure, as well as acoustic sensors and cameras, around a specific location to pinpoint the location of a gunshot in real time. This AI can alert authorities quickly to facilitate timely response. Another advance technology being used in law enforcement is pattern recognition via deep neural networks, which permit facial recognition of crime suspects and detect anomalies in brain activity, or gait that may signal violence or disturbed tendencies (Faulk, 2018).

However, *Beta* was not too optimistic of Facebook and Twitter's role in aiding law enforcement in combatting xenophobic ideas and future crime, saying that "there's been a reluctance of social media companies to allow law enforcement the same access to data and the same analytic tools that ... are being used by commercial entities to sell advertising, and to do other types of marketing activities". *Beta* believes that social media sites cannot be of much help

to law enforcement unless the latter are permitted to access raw data and the analytic tools.

Instead of working with law enforcement, these social media sites, according to *Beta* are against law enforcement efforts to use social media data and analytics for crime prevention efforts. *Beta* underscored, “and that’s where we need to change”.

Meanwhile, according to *Epsilon* and *Eta*, any threats regardless of origin, whether social media, text, etc. are subjected to threat assessment, and if found with merit, risk protection orders are issued. Yet, because law enforcement does everything within the bounds of the constitution, the best that they can do is: “to figure out who’s a potential time bomb ... that’s all we really can do from a prevention standpoint”. Overall, interview coverage for information gathering from social media as a way to resolve mass shooting crimes was 71%.

Issues

Censorship—political correctness. As to censorship of hate posts or xenophobic ideologies by the social media networks themselves, which was covered in 29% of the responses in the third interview questions, the subjects appear to be quite uneasy with the idea. *Beta* and *Eta* manifested negative sentiment on the issue of censorship and their disfavor stems from political correctness, with *Eta* rhetorically asking, “who deserves the right of censorship there?” Meanwhile the notion that social media companies will support law enforcement in filtering hate posts or xenophobic ideologies, and his mention of reluctance by social media companies seem to signify helplessness, and the need for reform: “that’s where we need to change”.

Compliance with laws and constitutional rights. The child node, compliance with laws, is separate from the child node, constitutional rights. However, these two child nodes

overlap and to ensure a smooth flow of ideas, the discussion was integrated into one heading.

One issue that hinders law enforcement efforts are laws, particularly the right to free speech and the right of security, that needs to be complied with as law enforcement implements measures to investigate social media hate posts and/or xenophobic ideologies. Compliance with law was covered in 29% of the responses from the third interview question, whereas constitutional rights were covered in 86% of the interviews. Thus, constitutional rights constitute a major issue that limits the role social media as partners of law enforcement in preventing future crimes, such as mass shootings.

Gamma mentioned one particular case when the first amendment rights may be overruled: “if a terror plot is being unveiled online through a social media platform”. In a separate interview, *Eta* provided support explaining that “one of the limitations of that speech [referring to free speech] needs to be that it is built in a way that does not violate other laws or cause violence”. Meanwhile, *Zeta* considers the first amendment right a barrier to law enforcement action on social media hate posts and/or xenophobic ideologies describing this challenge as “a big mountain to tackle’ because there is a fine line bordering violation of the first amendment and stopping hate speech or xenophobic ideology by shutting down a social media site. In a separate interview, *Alpha* validated *Zeta*’s fine line description of first amendment issues using the term “blurred lines”.

On the other hand, *Eta* did not categorically mention a fine or a blurred line about social media’s role in aiding law enforcement against hate or xenophobic ideologies, but asked a rhetorical question: “There’s a history of violence in the community, well, did they deserve

special exception under hate crime legislation? *Eta* also decried how the FBI's running predictive analytics and filters on Facebook posts had been ruled out as unconstitutional. Assessing such social media posts can lead authorities towards actionable intelligence on future mass shootings, especially if a user has been quite consistent in his/her dissemination of hatred towards a certain individual or a group of people, or xenophobic ideologies.

Cultural influences. Issues pertaining to cultural influences in combatting planned mass violence covered 29% of the responses in the third interview questions. To illustrate, protecting schools from mass shootings is rendered very difficult because of a culture where both educators and parents put a premium on convenience and aesthetics. Thus, getting the parents to enroll their children in a school with perimeter fence and armed guards would be next to impossible. Alpha was quite stern saying, "it's just not going to happen". He added, "in this country, ... you can be wrong and that is your right to be wrong about what you think ... it's the kind of belief system that is going to cause pain or violence". In this case, *Alpha* directed the conversation to the freedom of speech, no matter if the content is fallacious. Thus, would freedom of speech be an excuse for believing and spreading on social media that killing people or doing violent acts that put peoples' lives in peril are legal? *Eta* also pointed out cultural influences as culprits for people posting hate messages or xenophobic ideas in social media, citing the history of marginalized black communities, racism and Nazi-supremacist parentage.

Another interesting angle about cultural influence being an issue in combatting mass violence was raised by *Eta*. It is about younger users treating information retrieved on social media on equal footing with the trustworthiness they attribute to significant people in their lives:

It's about information streams and I think that part of the problem is ... the way that we get information either from the media, social media, our parents, or our clergy, or someone of influence in our lives. And ... social media is able to create influence on a level that's equal to our parents, preachers and our teachers without any real vetting of the person who's given that information ... without any real credibility to who that person is speaking. You know, you read it and it, and ... it clicks a nerve with you, and you go with it. I just don't get it.

Thus, as articulated in Moturu and Liu (2011), given that considerable social media content is contributed by “strangers “with little or no apparent reputation to speak of, there is no easy way to detect whether the content is trustworthy” (p. 239). When unverified sources are treated by users on an equal level as they do with information coming significant people in their lives, the result is a culture of dependence on practically anonymous information sources. As emphasized in Moturu and Liu (2011), “trust is a solution for situations involving risk” (p. 243). Trusting unknown or unverified sources, therefore, involves a lot of risk

Intractable information and misinformation/fake news. The heading is a combination of two child nodes under Issues. They were combined in the discussion because the themes are overlapping. Intractable information was covered in 14% of the interviews and a very timely concern about social media posts. Meanwhile, misinformation/fake news was covered in 29% of the interviews.

Epsilon stated that “We are in an age where any and everyone is suddenly their own ‘media outlet’, [which] allows for misinformation, false stories, half stories, etc. to be spread”.

Although Facebook nixed three billion fake accounts as of May 2019, according to White (2019), there is no guarantee that misinformation, as well as hate posts and spread of xenophobic ideologies will stop. After all, it is real people who think up and disseminate hate message. Real people affected by negative thoughts from hate and xenophobic messages plan mass violence. *Epsilon* also claimed that misinformation “causes the most division among social media platforms”.

Often content circulated on social media are either isolated cases or statistically insignificant. However, the problem with social media is that “as popularity metrics are increasingly linked to sharable texts, the lines between content designed to inform, inspire, and educate, and the content designed to illicit clicks, earn likes, and proliferate are blurred” (Wuebben, 2016, p. 66). The latter type of content often misinforms intentionally or unintentionally. *Eta* directed the information on how misinformation and more particularly, fake news, creates a barrier between the misinformed and law enforcement, by creating unfounded prejudice or bias. A case in point used by *Eta* to illustrate the aforementioned issue was the black community in America and the effect of half stories on social media and traditional media about racial profiling. Specially among young boys of color who do not understand much, there is dependence on social media for more information from sensational content that usually go viral. Such irresponsible content creates unnecessary fear. *Eta* explained:

For the black community is these young boys that are coming up have a fear of law enforcement and should they be afraid or ... what's the dialogue that we need to have to ... an understanding that ... it shouldn't be fear, that maybe we need to have a mutual

respect for each other. That if you ... comply with what law enforcement says and if they're wrong you can complain on them and you can ... go to court.

The above quote or something to that effect is absent from social media content. Out of fear of what they have been indoctrinated on social media, these young boys of color grow up afraid, and worst, some of them nurture hate for law enforcement and society in general. *Eta* believes that:

The media wants us to have that barrier ... black Americans for lots of reasons to not want to trust law enforcement ... they [i.e., the media] show you all these reasons you shouldn't. But I don't think that [way] ... it's not every cop, it's not every interaction. It's not all the time. There [are] bad people in every ... line of work, in every industry. So, when you paint it out that way, it makes it look like something that's not exactly [what is really is], and ... if that's what you're reading in social media ... then that's going to become fact for you.

Media game of divisiveness. This sub-theme was covered in 57% of the responses in the third interview question and is the second most dominant issue next to constitutional rights that constrains social media in aiding law enforcement's prevention efforts for future crimes. *Beta* cited the US president's use of "the same language of white supremacist rhetoric" to create a culture of divisiveness propagated by media. Social media is no exception in this regard. In a separate interview, *Gamma*'s response validated what *Beta* said, adding that: "it all starts from the top. Our president has created a social culture of division and not inclusion ... social media platforms cannot be responsible for other people's actions". In the latter clause in *Gamma*'s

quoted response, it may be roughly interpreted that social media has no mandated accountability to provide assistance to law enforcement efforts towards prevention of future crime or that social media is not contributing to society's divisiveness

However, *Epsilon* believes otherwise. Social media, from the perspective of Epsilon, not just as a police officer but a social media user, contributes to divisiveness:

Media outlets wanting to be the first to get the information out, often do not fact check appropriately or verify information before reporting. This creates a false sense of validity to the reader that they are being provided factual information or the "whole" story. This is what I believe causes the most division among social media platforms because everyone has an "article" they can provide stating information as though it is factual no matter what side of the issue you are on.

Eta also validated in a separate interview that social media has a part in social divisiveness because there are content that causes people to take sides:

I don't think that there's really that much division in the world that really existed. I think they're amplifying it and creating additional division ... So, I think that that's just the game that they play because they enjoy the divisiveness that they create ... I feel that ... it [social media] contributes to how people build their prejudices in life is based on the things that they're made to be afraid of, through the streams that they're [i.e., the people] made to be afraid of them.

Mental health. This sub-theme was covered in 29% of the responses in the third interview question. *Gamma* frankly assessed the current situation as one in which "law

enforcement will not have the ability to prevent all mass shootings. Given that practically all prior mass shooting perpetrators were suffering from some kind of mental issues, *Gamma* hopes that citizens will practice “due diligence in notifying the respective personnel to ensure that those they feel are struggling with mental health issues”. Citizens in regard of the previous statement refer to significant people in the lives of individuals afflicted with mental problems, such as family members and friends. Mental health professionals are expected to use their knowledge of any indications that their patient(s) may be contemplating an act of mass violence.

Another angle contributed into the mental health conversation by *Alpha* is a culture where mental health problem is stigmatized. Thus, even the very individuals who feel they may be suffering from mental problems may be reluctant to seek professional advice and eventually intervention, not just because of the stigma, but also because of the cost of mental health services. However, the literature was inconclusive about mental health being a factor in mass shootings, particularly Gold (2015) and Gillin et al. (2017) from the literature review chapter.

Prejudices and bias. This sub-theme was covered in 14% of the responses in the third interview question. *Eta* provided several allusions to prejudice or bias caused by exposure to a biased media. Nowadays, these ideologies that promote bias against a certain group of people find their place in social media content posted by users and advocates or those against Nazism and biological racism (anti-Semitism), white supremacy movement, anti-homosexuality, fear of minorities, hating certain religions, etc. As Mathew, Dutt, Goyal, and Mukherjee (2019) posited, one of the key issues haunting social media is hate speech, where the world had been a witness to horrendous developments in the crime scene, particularly the anti-Muslim rioter-violence (Sri

Lanka), Rohingya genocide (Myanmar) and the synagogue shooting (Pittsburgh). Mathew et al. (2019) underscored the “dire need to understand the dynamics of user interaction that facilitate the spread of such hateful content” (p.173). The empirical study revealed that although only 0.67% of the users of the extreme right app Gab Social generate a quarter of the app’s hateful content, their posts were more likely to be disseminated “farther, faster, and wider [because] “hateful users are far more densely connected among themselves” (p. 181). In this regard, a scholarly study based on big data was validated from the accounts of a law enforcement personnel.

Tools of crime/will and opportunity. These two sub-themes are separate child nodes, but since will and opportunity are parts of the mechanism of crime, as explained by Alpha, these sub-themes were combined in the discussion. Tools of the crime as separate child nodes were each referenced in 14% of the responses in the third interview question. *Alpha*, a retired police chief explained the mechanism of crime based on three points: tools, opportunity, and will: “All three must be present. You can always try to prevent crime. But you will have to affect all three points at once”. From the viewpoint of the subject who actually tried to prevent crime as both a profession and a vocation, the presence of the tool of the crime – a gun – must be addressed. His recommendation is to “ban all assault weapons”, which he described vividly in terms of the AR-15 as “simply a tool to kill people”. So far, the gun control debate in America inclines to the pro-gun side. As quoted from Spitzer (2015): “Like it or not, regulations are integral to America’s gun ownership tradition. But like it or not, guns are an integral part of America and will continue to be part of who we are” (p. 8). In this regard, the tone of *Alpha*’s statement was that of

resignation: “if nothing happened to the assault rifle and its availability to the public after Sandy Hook Elementary then nothing was ever going to happen. So, the tools are out of the conversation. We need to be trying to affect their will and opportunity to commit these crimes”.

To illustrate how law enforcement efforts can do something about the opportunity element of a mass shooting or any act of planned violence, *Alpha* explained: “The issue of opportunity will come into play when are able to make schools, for example, hard targets ... It will be hard to put perimeter fence around a school with armed guards and get people to register their kids there”. According to the Alpha, at the present time for every American, there are 3 guns in rotation, and “that’s a lot of guns”.

Thus, from the interviews, law enforcement supports reasonable gun control. Narrowing the focus of criminality, just on mass shootings, gun control will help solve the problem. However, widening the focus on planned mass violence suggests that the crime may be committed without guns because there are bombs and explosives. This implies that gun control policies, legislation, and legal impediments may will not solve the problem at all because people carry out the crimes and it is much easier to influence people through social media than constrain or limit ownership and possession of guns. The fact that ownership of guns and other weapons can also be made possible beyond the legal context.

Facebook Role for Future Peace and Unity

This section discusses the subjects’ responses to the fourth interview question asked from the subjects of the dissertation: In your experience and understanding of mass shootings in the US and the power of social media, *how do you think Facebook, as the largest social media*

network, can lead other sites in spreading peace and fostering unity, if that is actually possible?

Eleven child nodes surfaced from the interview responses: consumer user's responsibility, effect on revenues, expansion of platform features, fact check, market leader role, messaging-phrasing, not Facebook's role, political blocking censorship, reputation management, social responsibility in vision mission, and utilizing predictive analytics.

A Matter of Responsibility

The sub-themes that turned up from the electronic processing of the qualitative data imply two versions of responsibility. One version, which was covered in 43% of the responses in the fourth interview version was the social media consumer's responsibility. The other version is social responsibility in the vision and mission of the social media company, which was referenced in 86% of the responses in the fourth interview question. These two separate child nodes make up the most dominant sub-themes that emerged for the fourth research question.

Delta's earlier introduction of the upstander culture manifests the social media consumer's responsibility to take a shift from the traditional bystander culture during mass shootings or attacks of mass violence to that of upstanders who endeavor to be part of the solution rather than part of the problem. Of course, this does not answer the question about Facebook leading other social media sites to propagate and foster unity. Reading between the lines, *Delta's* idea about the possibility that Facebook taking up the cudgels to spread peace and promote unity is positive. This role is serving as a platform to model the upstander culture, as *Delta* mused: "I think the biggest benefit of potentially leveraging an organization like Facebook or Twitter would be starting in that culture and those big, big global communities. A shift of

moving people from being warriors and bystanders to what's going on, to actually being upstanders”.

Gamma was not in agreement to the proposition that the matter of spreading peace and foster unity is Facebook’s responsibility: “I don’t think it is Facebook’s responsibility in fostering peace and unity. I feel it is the responsibility of the citizens and users of the network”. His response was succinct and direct. Meanwhile, *Epsilon*’s position was more on the moderate side: “I think social media can only do so much to fact check articles, but it is incumbent on the reader to understand that not everything they see on social media or in the news is true and to not rush to judgement on issues or articles sparking false outrage and division before really finding out all the facts”. While *Epsilon* is not against the idea that Facebook can do a little something for peace and unity, the bigger responsibility from her perspective lies on the social media consumer, the user. Thus, *Delta*, *Epsilon*, and *Gamma* discussed the side of user responsibility to espouse peace and unity from the largest to the zero level.

The other version of responsibility for peace and unity, being more a responsibility for Facebook and other social media applications was argued by Alpha, Beta, Delta, Eta, and Zeta.

Zeta believes that until the present time, social media companies in general seem to be yet unmotivated to “promote something good ... that’s not the norm”. He, however, described the ideal situation that one day, when these companies realize that they have “made enough money ... got enough power ... got enough support that maybe [they can] ... take one in every 10 ads and not make money”, but promote say, peace and unity. *Zeta*’s tone was hopeful.

Delta was more focused on Facebook, and is, therefore, more attuned to the fourth interview question. Like *Zeta*, *Delta* was hopeful from the point of view of the business reality that as a market leader, Facebook practically set the standard that many of today's social media platforms. Thus, if Facebook is that important in the context of market hierarchy, it can maneuver its brand towards a pro-social posture that the market followers can emulate. *Delta* was on point having responded to the entire question including *how it is possible* in the real-world view – implicitly suggesting that the FBI's advocacy on spreading the upstander culture can use Facebook as a revitalized launching vehicle:

They could be more proactive in creating forms and creating mechanisms for the promotion of, you know, pro-social ideas ... given the size of the organization and their popularity, their usage, they could very easily take a much more prosocial stand and actually I think have a big effect. And ... it's an interesting thing if you want to kind of make a jump in logic”.

Alpha underscored that “We are living in the age of the keyboard warrior, unfortunately”. However, the researcher's take on being a keyboard warrior is not bad per se, unless the warrior is fighting for the wrong cause. *Alpha*'s response to how Facebook can leader other site in spreading peace and fostering unity is “by getting rid of all political and hate-based messaging, posts, etc.”. Nevertheless, he qualified the statement, adding: “But doing that will affect their bottom line”. *Alpha* illustrated his answer using Trump's tweets, which are not necessarily messages that spread peace and promote unity. However, Trump's hateful tweets are allowed by

Twitter because such Trump tweets “give juice to his supporters to rattle along behind him and so goes that train on down the tracks at about 1,000 mph”.

Beta was quite concise and transparent he is not sold to the idea that spreading peace and unity is even a role of Facebook clarifying that they [i.e., Facebook and maybe other social media platforms] “they simply are there to foster communication”. Meanwhile, although *Epsilon* did not explicitly state her position about Facebook helping out in propagating peace and unity in social media, her response indicates that she doesn’t think so. Reading between the lines, her statement that “everyone is suddenly their own ‘media outlet’” suggests that Facebook is just a vehicle, or a means and it is the users who create and disseminate content.

Eta’s response was very interesting in the context of a scholarly study because he provided a definition of spreading peace and fostering unity as “asking a lot of people to just engage in the contract of a polite society and be respectful of each other”. His response was also interesting in from the hindsight despite stating that “I don’t know what else they [i.e., Facebook and maybe other social media platforms] can do ... Don’t exist and shut it [i.e., Facebook] off. Then, *Eta* recalled that during the 1950s to the 1970s, the civil rights movement all happened without any technology, like Facebook and the Internet, “but hatred ... existed back then”. Things were accomplished by phone calls and nobody needed social media.

Perhaps, as *Eta* reminisced, social media could have made the civil rights movement happen faster. Thus, synthesizing *Eta*’s response for the fourth interview question, it was quite clear that hatred and its consequences can exist without facilitation by communication platforms. The only element that changes is the duration of what eventually transpires instigated by hatred.

Grounded on Eta's response, Facebook is practically powerless to advocate peace and unity, if the people using them nurture all the hate. Facebook can close down, but the hatred remains in people. What Facebook can actually do in the name of social responsibility is "make them [i.e., the shooters] anonymous ... Don't let them use ... the Facebook platform to help further the hatred of their crime ... or we're [part] of the sociopathy of the crime".

Effect on Revenue

This sub-theme was referenced in 29% of the responses for the fourth interview question. *Zeta* is hopeful that someday, the power of social media, particularly Facebook, will be geared towards promotion of peace and unity. He explained that while this stance may not be compatible with the revenue-making model of Facebook, one of these days, it will have to be done for reputation management. Mark Zuckerberg has had brushes with the law in the recent past about privacy protection of Facebook users. *Zeta's* hopes for Facebook shifting its promotional posture towards peace and unity is anchored on Bill Gate's decision to include charitable foundation among his interests aside from earning billions.

Expand Platform Features and Fact Check

These sub-themes are separate child nodes under the parent node, Facebook Role for Future Peace and Unity, but were combined because fact checking articles posted on social media may be programmed electronically as one of Facebook's and other social media apps' expanded features. The sub-theme, expand platform features, was referenced 14% in the responses for the fourth interview question, and so is the sub-theme, fact check. *Epsilon* contributed the use of fact-checking of articles posted on social media into the conversation.

Delta believes that Facebook can be the leader among social media apps in the promotion of peace and unity by extending its platform features, like a channel to help share information, for example about “recognize how to recognize people on the pathway to mass violence, how to turn that around”. In more general terms, *Delta*’s positive outlook about Facebook being a future vehicle for peace and unity takes on the concept of using Facebook to leverage technology, to leverage the reach of the platform”, to disseminate useful resources. *Delta*’s hope for Facebook is for the platform to transform Facebook users from lookers or mere voyeurs to people genuinely concerned for everybody else. The basic premise is to leverage Facebook from a carrier of hate messages to a vehicle for concerned and aware individuals into a platform that promotes peace and unity among men and communities.

Market Leader Role

This sub-theme was referenced 29% in the responses for the fourth interview question. Appending to his views about the positivity of Facebook promoting peace and unity via the upstander culture is the importance attributed to Facebook’s market leader role to their role in social discourse. As a market leader, and through an effective information campaign, Facebook can use its market leader position in leading other social media apps to advocate pro-social ideas, to nurture peace, and to foster unity. One way suggested by *Delta* was to post information that will help users to understand the “pre-incident indicators of someone mobilizing towards violence ... regardless of the mode of whether it was a terrorist or a personal grievance”.

Messaging—Phrasing

This sub-theme was referenced 14% in the responses for the fourth interview question. *Eta* suggested a way by which Facebook can facilitate the promotion of peace and unity, by phrasing the messages in such a way that even when two or more people do not agree on something, that they “be respectful even if we don’t accept another person’s viewpoint”. Two ideas surfaced from *Eta*’s response in the fourth interview question – that Facebook releases an official statement that it is its stand that everyone is entitled to his own opinion and users always have a choice whether or not to listen to diverse perspectives, but be civil about any disagreements; and that perhaps Facebook can come up with an algorithm that can electronically rephrase message automatically detected to have an air of arrogance or hatred about differing beliefs or opinions. The first idea is doable and appears to be a very good suggestion that Facebook can consider. However, the second idea is quite complicated, not in terms of technology, but in terms of users’ sentiments about their original messages being rephrased or edited to make them more tolerable for people who believe otherwise.

Communication is animated with the strength or impact of the words used to convey an idea. Rephrasing can simply tone down the communicator’s intensity level but refrains from changing the thought of the information delivered. This, too, may be doable using complex algorithms, to be appended with a note that the message was rephrased as per the terms of use and service of the application. This researcher’s only apprehension is that although this may work well with people with normal mental conditions, users who are mentally unwell may feel more alienated and end up hating more or having more grievances.

Not Facebook's Role

This sub-theme was referenced 14% in the responses for the fourth interview question. *Beta* and *Gamma*, in separate interviews, argued that promoting peace and unity is not Facebook's role for similar service. *Beta* emphasized that "Facebook sells a service ... to foster communication", whereas *Gamma*'s rationale was that Facebook is "in business to make a profit". Reading between the lines, *Beta* does not consider Facebook's role to spread peace and unity because it is merely selling a platform for communication. However, *Gamma* thinks that promoting peace and unity is more of the role of Facebook users led by a president that creates a social culture, instead of a culture of divisiveness.

Political Blocking/Censorship

Next to the sub-theme social responsibility in vision mission, political blocking/censorship is the second most dominant sub-theme. It was referenced in 71% of the responses to the fourth research question. This child node discusses the subjects' views how Facebook can propagate peace and foster unity through censorship or political and if this is ever possible. *Zeta* and *Epsilon* were quite up-to date-with the latest developments in this regard. *Zeta* mentioned that Facebook had so far used censorship by disallowing certain individuals, like Farrakhan, to use the platform. Meanwhile, *Epsilon* quipped: "I also know that often certain sides, views, or sites are often blocked or banned from Facebook, not allowing all of the information to be seen".

A spokesperson from Facebook explained that in deciding to slap the 'dangerous' label among its users, the social media company undergoes a lengthy procedure and reflects over a

number of factors, including: (1) espousal of *violence* against people on the basis of ethnicity, national origin, or race; (2) identification of the personality concerned to a *hateful ideology*; (3) use of *hate speech or slur* in social media profile; (4) history of removal of pages or groups on Facebook administered, created, or managed, by the personality concerned due to *violation of rules against hate speech* (Darcy, 2019) [Emphasis through *italicized bold* font provided by researcher].

To provide some background information from recent (i.e., as of the date of the interviews) news, the Business division of the Cable News Network (CNN) reported a Facebook and Instagram ban on what these sister companies consider as ‘dangerous voices. Based on the CNN report by Darcy (2019), high-profile personalities, such as Louis Farrakhan, Alex Jones, Paul Nehlen, and Milo Yannopoulos, were banned from Facebook because the dangerous ideologies they promote. Farrakhan is the leader of Nation of Islam and is notorious for his anti-Semitic language. Meanwhile, Jones is a far-right conspiracy theorist and owner of the predominantly fake news website InfoWars. Nehlen is a white supremacist businessman and politician, also an outspoken anti-Semitic, who unsuccessfully ran as representative of Wisconsin in the US Congress (Manji, 2019). On the other hand, Yannopoulos is an extremist who espouses antagonism on multiple issues. Judging from Yannopoulos (2017)’s book, *Dangerous*, he hates practically everything.

Interestingly, *Zeta* has misgivings about the ban on the aforementioned personalities, not because he sympathizes with the ideologies promoted by these personalities, but because of the motivation for the ban. He said: “Frankly, I don’t agree with that ... And honestly, I think that

it's the platform they promoted ... I think it's because it's (i.e., the hate posts/extreme ideologies) hurting their business". *Zeta*, an active shooting survival expert trainer, believes that any individual or any organization who wants to prevent mass shootings or any act of mass violence needs to single out behavior, not the individuals. The principle *Zeta* advances to address hate ideology is to attack the behavior, not the individual. Sharing his opinion about how Facebook should have approached the issue: "So if you really want the support of the masses, they should've said, okay, guys, from now on, if you're promoting hatred of humans and violence against people because of ... the way they think or the way they live their lives, you're not welcome on our platform anymore".

Likewise, *Beta*'s interview responses manifested alienation to the use of censorship to promote peace and unity:

I think it's not so much a question of Facebook and Twitter to control their content ... it's the responsibility of our elected officials and it's [the] responsibility of the public to think about the type of discourse we want to, whether it's in person or online. Not so much asking a service provider to change the way we speak.

As this researcher shared in the interview with *Zeta* earlier, Facebook using censorship to advance peace is an oxymoron. The researcher's view was inspired by a classic treatise on just peace penned by Rumfeld (1981) which conceptualizes peace in the context of a social contract:

It is a contract in that there is an agreement--a harmonization of expectations.

It is this social contract that is peace within social field theory. Peace, then is determined by a process of adjustment between what people, groups, or states want, can, and will do.

Peace is based on a consequent balance of powers and involves a corresponding structure of expectations and patterns of cooperation (Chapter 2, section 2.2.5).

On the other hand, *Alpha*, a retired police chief, and *Eta*, a police major, from separate interviews are in favor of the Facebook ban. *Alpha* said that Facebook can help our aspirations for peace and unity “by getting rid of all political and hate-based messaging, posts etc. But doing that would affect their bottom line”. Meanwhile, *Eta* argued that aside from making mass shooters anonymous, taking down purveyors of hateful messages and ideologies is fine with him: “Don’t let them use the platform ... to help further the hatred of their crime”.

The discussion becomes more interesting at this point because although the interviews were done separately, it can be recalled that *Zeta* does not support the Facebook ban believing it was motivated by business reasons – to improve the bottom line. *Alpha* supports the Facebook censorship action but believes that its bottom line will be affected. *Alpha*’s use of ‘but’ in the first sentence of this paragraph suggests censorship will not improve Facebook’s bottom line. So far, two subjects from law enforcement are against censorship and two subjects, one a government authority, and a military-affiliated mass shooting response expert favor censorship.

In view of the foregoing paragraph, the question should be – what did really motivate Facebook to apply censorship? This part of the discussion again requires input from recent developments. As earlier hinted, Facebook has had brushes with the law, and the latest one was about user privacy violations, which dates back as far as early this decade. In a Forbes business magazine article by Nuñez (2019), the Federal Trade Commission (FTC) revealed that Facebook intentionally permitted improper access of users’ personal information by Cambridge Analytica,

a political targeting firm, during the US presidential election. Facebook was fined by five billion dollars by FTC for its willful violation of consumer privacy. Earlier, in 2010, Wall Street Journal (WSJ) researchers, Steel and Fowler (2010) divulged WSJ investigative findings that many Facebook apps transmit identifying personal information of users to advertising and Internet tracking organizations. This was validated in the legal journal article by Etzioni (2012) aptly entitled, *The Privacy Merchants: What is to Be Done*. The implications of this part of the discussion is extended further under the next child node, reputation management.

Reputation Management

This sub-theme was referenced in 14% of the responses to the fourth interview question. Reputation management appears to be the mediating factor in Facebook's recent banning of high-profile personalities who have the penchant for hateful speech and/or espousal of extremist ideologies. *Zeta* categorically identified reputation management as the motivation for Facebook's recent censorship/ban of individuals sponsoring hateful messages and extreme ideologies that foment hatred among certain groups. *Zeta* went as far as explaining reputation management in terms of "doing it to protect their own (i.e., Facebook's) reputation, which means protecting their ability to make money.

Utilize Predictive Analytics

This sub-theme surfaced in 14% of the responses to the fourth interview question about how Facebook can contribute to the promotion of peace and unity. As defined in a more general sense, predictive analytics refers to predictive profiling of persons of interest through their social media or other online posts which can offer institutions with actionable intelligence that can be

used to design appropriate pre-emptive interventions. The foregoing definition was adapted from the pedagogic perspective in Williamson (2016) and rephrased to achieve a broader meaning. *Eta* offered a view of predictive analytics as applied in law enforcement work and how this can be adopted for Facebook: “We look for that type of a cover-up of stuff going on. ... I think there should be a way for Facebook to apply or these things do apply some type of metric and I think they do to a certain extent, looking for somebody saying *high school kill everybody guns*. [Researcher provided the emphasis] ... they see those keywords in a sentence or a tweet and ... even if nobody reports it to us, it pops up in filters, different places”.

It appears that *Eta*'s suggestion is an existing technology, which Facebook now applies to enhance their bottom line, as earlier discussed under this section on Facebook's role for peace and unity. The recent ban on high-profile personalities who are predominantly inclined to disseminate hateful messages, xenophobic and extremist ideologies, is already an indication that Facebook possesses such capability to apply predictive analytics to make the world a more peaceful planet to live in through unity in the global community. The five billion-dollar fine imposed on Facebook by the FTC may serve as a strong motivator for Facebook to be more responsible with the information in their hands, to be fair to all users. Upholding the ideals for a more peaceful society may not be integrated into Facebook's business model. However, when the revenues are affected, sincerely playing as a watchdog against future perpetrators of planned mass violence, had to be included as an essential business goal.

Specified Incidents

This section on specified incidents expounds on the subjects' responses to all four interview questions, where incidents of mass shootings were cited to explain their point, draw comparison, or provide an example. Eleven child nodes surfaced from the interview responses, which represent eleven different cases of mass shootings. Unlike the first four question where the child nodes were arranged in alphabetical order, the specified incidents were discussed in terms of descending percentage of citations in the responses to all four interview questions. The Virginia Tech incident and/or the shooter, Cho; Sandy Hook and/or the shooter, Lanza; the Christchurch, New Zealand mosque incident; and Oslo, Utoya Island, Norway and/or the shooter, Breivik were the top four most cited mass shooting cases in the interviews, with a percentage of 29% each. The rest of the seven other mass shooting incidents cited in the interviews were referenced in 14% of the responses.

Virginia Tech/Cho

Delta cited Virginia Tech and the shooter Cho several times during the interviews to explain several issues: how social media and mass shootings are linked, particularly, the contagion effect; the evolution of how mass shooters utilized media towards social media through time; and to underscore the fact that more recent mass shooters in history studied earlier mass shooting incidents to somehow avoid the same mistakes. Meanwhile, *Alpha* mentioned Virginia Tech and Cho as a comparison for his advocacy about banning all assault weapons as a preventive measure against mass shooting given that mere handguns can decimate 32 people

within a short span of time: “we need to ban all these assault weapons ... I remind them that Seung-Hui Cho killed 32 people in Virginia Tech with two handguns”.

Sandy Hook Elementary, Newtown City/Lanza

Delta cited the Sandy Hook shooting incident and Lanza to depict a connection between the media and mass shootings, via the mediating factor of accessing information to accomplish his goal to shoot and kill people. *Alpha* also mentioned Sandy Hook to highlight his issues against assault weapons owing to the lethal threat of assault weapons, which can hit their targets through concrete walls across great distances. He compared the weapons used in Virginia Tech. He also aired his sentiments of hopelessness about the future of the gun control debate in America: “if nothing happened to the assault rifle and its availability to the public after Sandy Hook Elementary then nothing was ever going to happen”.

Mosque/Synagogue in Christchurch, New Zealand

Delta explained the evolution of media usage in mass shootings that culminated in the emergence of more hi-tech shooter coverage in his own deadly rampage via social media. Meanwhile, *Eta* cited shooting in a mosque in Christchurch, New Zealand to illustrate the possibility that planned mass violence may be an offshoot of copycat killings lured by the notoriety achieved by previous mass shooter who styled himself after the Norway shooter. The mass shooter in the Christchurch mosque/synagogue was a copycat of the Norway mass shooter. Both shootings were facilitated by social media and the shooters were also linked by the same xenophobic ideology of anti-Semitism.

Oslo, Utoya Island, Norway/Breivik

Delta alluded to the mass shooting in Oslo, Utoya Island and/or the shooter, Breivik to reinforce his claim that recent mass shooters study the earlier cases and perhaps, consciously make an attempt to outdo their predecessor, while copying details of previous incidents that interest them. *Delta* mentioned the copied modus in the Virginia Tech incident by the Norway killer was the manifesto. In this regard, the manifesto was posted online, but not via social media. *Eta* highlighted the common denominator between the Norway and the New Zealand shooters as xenophobia, their hatred of the Jews.

Active Killer—Knife Incident

Epsilon explained that she used the term ‘active killer’ cognizant that mass violence is not always perpetrated through the use of a firearm. The knife incident was not identified with a location in *Epsilon*’s interview. However, she did mention the justification for usage of the ‘active killer’ term to a high school stabbing incident where a 16-year old student victimized 25 individuals in 2014. Using Google services, the knife incident was found to have happened at Franklin Regional Senior High School in Westmoreland county, Pennsylvania (Carter, Courson, and Pamela, 2014). According to *Epsilon*, the ‘active killer’ term came about when she was engaged in a school’s Active Threat Response program, at time when the high school stabbing occurred.

Columbine HS

The incident was cited as *Delta* made a point about more recent shooters being interested in some specific details of a previous mass violence. The main aim of mass shooters in studying

previous mass shootings was to design more improved schemes to increase the number of affected victims. Comparing the salient patterns of past mass shooting events, *Delta* was able to connect mass shootings with both media and social media. However, since social media was not yet as popular as it is now, even if it existed during the Columbine HS shooting incident, the social media – mass shooting link is weak as of the dawn of the new millennium.

HS, Florida

This incident is not necessarily a mass shooting but a series of suicides among high school students in Florida. *Eta* used these suicides as an illustration that along with causing the death of many people through violence, causing one's own death is also a passport for popularity from the lens of notoriety. More importantly, using HS, Florida, *Eta* brought attention to the contagion effect and the possibility of copycat syndrome in relation to suicide news disseminated through mass media. This is especially so that the suicides in question came about just a year after a mass shooting in the school where these suicide-teens study (Rozsa, Epstein, Mettler, & Bever, 2019)). These suicides are, therefore, linked to mass shootings.

Mumbai Multiple/Hedley—Lashkar-e-Taiba.

This shooting incident was used by *Delta* to explain symphonic terrorism. In this regard, the influence of social media to mass shootings becomes very evident. Symphonic terrorism is facilitated through social media where someone outside the multiple scenes of simultaneous mass shooting attacks coordinate the action of the terrorists for more carnage. In this specific case, social media provides the effect of a CCTV system within an expansive locale of multiple mass shooting targets. Mass violence can now be perpetrated with the criminal hidden and

comfortable at a great distance from the scene of the crime. This revelation from the interviews have serious implication for both law enforcement and social media companies, particularly, Facebook. With the emergence of symphonic terrorism, there is urgency in developing more effective guidelines in disseminated crime-related information.

Outdoor Concert, Las Vegas

Alpha cited the outdoor, Las Vegas concert to emphasize the ills of the prevailing mentality among people, who, even in a shooting incident cannot help themselves but film and stream the carnage as it happens. This is the typical bystander mentality. From the viewpoint of an experienced law enforcement operative, this is not a healthy citizen response to an active shooter incident. This also dramatizes one of the ills of the social media generation – people at the point of possible death, but irresponsibly chose to document what they can capture on social media. The shooter in this incident was inside a hotel suite and possibly watching the streams of agony and fear on social media. With this incident going on record as the deadliest mass shooting in terms of fatalities and wounded victims at 58 and over 500, respectively, based on CNN Library (2019), it would be difficult to un-connect social media from mass shootings.

Roanoke VA/Former Employee New Station

Delta mentioned the Roanoke Virginia shooting to support the purported link between social media and mass shootings. The incident also illustrates how documentation of mass shooting crime evolved from a journalist's risky task to a mass shooter's claim to fame. As *Delta* remarked about the Roanoke shooter: "He's using your [addressed to Facebook] social media platform in the interest of this Herostratus effect".

Chapter 5: Summary, Conclusions, Recommendations

This chapter presents a summary of the results, with conclusions drawn from the interviews as analyzed electronically through NVivo Pro software. To reiterate from the methodology, descriptive quantitative results were generated in terms of frequency and percentage distributions of the parent-and-child nodes and the themes that emerged from the qualitative analysis through NVivo Pro software. The research question posed in this study was the following: What role do social media play in influencing the actions of the perpetrators of mass shootings in the United States? As in Chapter 5, the conclusions are presented in the sequence of the four interview questions and the specified mass-shooting incidents cited in the interviews last.

The four interview questions were as follows:

1. The development of social media communication tools has been associated with both positive and negative elements. *What is your opinion in regard to the link between social media and the increased incidence of mass shootings in the United States?*
2. Despite the global advancement of technology, the United States leads in social media misuse, possibly through the spread of hate crimes and xenophobic ideologies. *How do government agencies currently deal with this problem based on what information is known to you at the moment?*
3. *Do you believe such information (i.e., information from Facebook, Twitter, and other social media sites disseminating xenophobic ideologies via hate speech) can help law enforcement agencies to prevent future crimes? And if so, how can it be achieved?*

4. In your experience and understanding of mass shootings in the United States and the power of social media, *how do you think Facebook, as the largest social media network, can lead other sites in spreading peace and fostering unity, if that is actually possible?*

Summary

There at least five ways in which the subjects viewed the link between social media and mass shootings. The social media–mass shooting connection is viewed as an enabler via bystanders and victims, virtual confidants etc. The interviews also revealed that the social media–shooting link in terms of the individual or personal agenda of users owing to its anonymity which can facilitate bullying and threats, the proliferation of citizen journalism, which users had become codependent. Such personal motivations also have a set of motivators such as the Herostratus syndrome, disgruntlement and hate, notoriety, and many others. The connection of mass shootings to social media is mediated by technology. Recently, emerging technology has paved the way for group or symphonic terrorism.

Among the solutions cited by the subjects as part of government action were actionable intelligence, policy and legislation, and police training. These government actions would be either facilitated by guideline communications issued by the government or targeted action against specific efforts by law enforcement authorities, such as the Electronic Frontier Foundation. Participants who were currently serving in law enforcement assured me that the concerned authorities had not stopped brainstorming and planning strategies to combat planned mass violence through meetings and reflective conferences. Nevertheless, some government

efforts against mass violence are thwarted by their own mechanisms, such as the action made against the San Francisco transport riot instigators. Thus, issues that challenge government efforts delay, if not hamper, successful government responses to mass shootings, particularly the First and Second Amendments, and what appears to be media incitement.

There is a possibility that in the near future, Facebook can partner with the government in preventing or neutralizing crime, particularly planned mass violence. This partnership can be operationalized as part of law enforcement efforts for intelligence gathering. However, there is a plethora of issues that government authorities are facing at the moment aside from constitutional rights. There are challenges that prevent cooperation between Facebook and the government in fighting crime, such as compliance with other laws, cultural influences, misinformation and fake news, prejudices and bias, and the media game of divisiveness.

Although Facebook is a private business and this may excuse its leaders from playing a role to help the world attain the aspiration for peace and unity, it is somehow being led by circumstances in that direction. The subjects who responded categorically to whether or not Facebook should promote peace and unity came to a deadlock. However, sooner or later, Facebook needs to partner with the government and the world in the name of peace and unity. Facebook needs this to gain more support from users and sponsors, and this implies that it needs to strategize toward reputation management and social responsibility.

The history of mass shootings in the United States has shown that more recent incidents have become more deadly. This is not an indication that law enforcement is doing a real bad job about it. One of the reasons for this is gun control. Another reason is the availability of advanced

technology to study previous crimes, learn from them, and commit similar crimes more effectively. Only a sick mind can think of outdoing somebody else in killing people. Additionally, mentally unwell individuals may not be constrained from purchasing powerful assault weapons if they have the means because every opportunity is available through the Internet. The information explosion began a revolution in knowledge and capacity building, but these opportunities are available to both forces of good and evil—the paradox of technology.

Strengths and Limitations

The main strengths of this study are its timeliness, the magnitude of the problem of mass shooting in America, and the benefits of more profoundly understanding mass shootings and the expertise of the subjects who were interviewed. However, the findings of the study can be validated using empirical data, especially the child nodes or the subthemes among subjects from academia and the healthcare field, as well as social media users from all walks of life. The findings from such a study can be triangulated with relevant literature and the results of this predominantly qualitative study to have a more focused understanding of the posited unholy connection between social media and mass shootings.

All of the subjects of the present study were technically from law enforcement, and their views may be limited to their field. It would also be interesting and important to find out if the set of subjects mentioned in the preceding paragraph would agree with the qualitative findings in this study about the future role of Facebook for promoting peace and unity. Additionally, while qualitative studies are allowed to have a few subjects, an empirical study with sufficient statistical power can better guard against external threats to validity. Thus, the present results are

exploratory in nature. A quantitative study with ample sample size and power could help establish findings with more rigor and a higher explanatory level of evidence.

Recommendations

In view of the predominantly qualitative findings, the recommendations of the study are presented. These recommendations are enumerated in the same sequence as the interview questions and the specified incidents. Additionally, recommendations about the strengths and limitations of the study are integrated as part of the recommendations.

In the future, citizens who happen to figure out in a mass-shooting incident can respond to the crisis proactively by adopting the bystander culture and making themselves aware of the correct response procedures for survival. Facebook can do much in advocating a culture of bystanders who are prepared to undertake survival efforts when necessary. Additionally, social media users need to be vigilant and careful about expressing their sentiments about hateful messages as well as extremist and xenophobic ideologies. Vigilance and sensibility about social media behavior of both the user and other people in the network can aid in advancing positive messages of unity. By reporting friends and family members who exhibit the Herostratus syndrome to the proper authorities, it may be possible to have one fewer future mass shooter. The main strengths of this study are its timeliness and the expertise of the subjects who were interviewed. However, the findings of the study can be validated empirical data, especially the child nodes or the subthemes among subjects from academia and the healthcare field, as well as social media users. All the subjects of this study were from law enforcement, and their views may be limited to their field.

It will advance the cause of law enforcement efforts if the proposed legislation that will relax First and Fourth Amendment issues that constrain the effectiveness of intelligence gathering and eventual proactive stance by government operatives during tactical operations. Facebook's recent efforts to ban high profile hate-mongers represent one small step for a possible synergy of efforts by social media and law enforcement. A state that protects civil liberties more than the physical existence of its citizens may be brutally idealistic. In this respect, Facebook can also contribute toward the dissemination of information and pleadings for Congressmen and/or Senators who are intense supporters of the First and Fourth Amendments. Law enforcement should also be sworn to uphold the prohibition against forms of illegal surveillance and take action against hateful/extremist/xenophobic rhetoric, not against the actual persons who espouse it. Banning people or groups no matter how hateful their posture is will foment more hatred.

Facebook, Twitter, and other social media companies on one hand, and law enforcement on the other, should have the same access benefits for intelligence gathering, within the constraints of what is legally and legislatively allowable. On this note, the blurred lines about social media's role in aiding law enforcement should be clarified. Additionally, Facebook is in the best position to input influences to shift America's culture toward more safety and prevention than aesthetics and political correctness. Schools, religious places, and other more likely targets of mass shootings should be reconfigured or built with safety and deterrence as the primary design considerations. All private and public organizations should have a ready in-house team of first responders for any instance of mass shooting or other crimes. The social media generation

should be brought up with information savvy and penchant to treat information retrieved on social media on equal footing with the trustworthiness they attribute to significant people in their lives. This will help train them to sift through fake news and other deceptive information, not only on social media, but also online. Additionally, the themes that surfaced from the qualitative interviews can be triangulated through empirical data from the set of respondents cited in the first recommendation.

Facebook can maneuver its brand toward a prosocial posture that market followers can emulate. In this regard, the FBI's advocacy on spreading the upstander culture can use Facebook as a revitalized launching vehicle. Facebook can accelerate its future role in fostering peace and unity by leveraging the keyboard culture toward a worthy cause, such as challenges in crafting messages of peace and unity. In this regard, Facebook needs to upgrade its terms of use with clear guidelines against hate messages, extremism, and xenophobic ideology. Peace is a social contract, according to Rumsfeld (1981); as applied to Facebook, peace may be achieved as a process of harmonization between what Facebook, law enforcement, and social media users want, can, and will do. Facebook is the key vehicle to communicate what all parties want, can, and will do. This is the first step toward peace and unity. It would also be interesting to find out if the set of subjects mentioned in the first recommendation agree with the qualitative findings in this study about the future role of Facebook for promoting peace and unity.

As a direction for future research, the paradox of technology mentioned last in the conclusion can be developed into qualitative or mixed-methods research as an attempt to find an

explanation for this paradox among a diverse set of subjects. The basic question can be framed to solicit suggestions and ideas to deter use of online information for criminal intent.

Conclusions

In the light of the results and findings in Chapter 5, the following conclusions are drawn:

Social media tend to influence the occurrence of mass shooting or active killer incidents in four ways: (a) as enablers of the conceptualization process of the crime until to final act of mass violence; (b) as facilitators of various individual or personal agendas of the mass shooters; (c) as platforms that harness emerging technology for knowledge building during the planning phase and operational efficiency of the final act; and (d) as coordinators of group or symphonic terrorism. These are the roles that social media play in influencing the actions of mass shooters.

Government authorities in charge of combating mass shootings and other active-killer incidents perform their tasks through actionable intelligence, legislation and policy, training of police and other first responders, mechanical barriers or deterrents, and brainstorming of new techniques and strategies. However, law enforcement operatives in the field and at their work-desks are constrained by considerable odds, which often come conjointly with their methods of crime resolution and strategies. Additionally, technology as a vehicle to fight or prevent mass shootings via predictive technologies has limiting influences on government action, particularly in relation to the First and Fourth Amendments, media incitement, and the culture of hate that is nurtured and sustained through social media.

Facebook and other social media sites can be contributing partners to government efforts in combating mass shootings and other acts of planned mass violence. However, at the current

time, government intelligence gathering is saddled with issues, particularly constitutional rights; a divisive culture pervading media, particularly social media; and user-provided content that does not necessarily observe guidelines for appropriate posts and comments, the proliferation of fake news, cultural influences, and the mental health of users who may be easily influenced by hateful messages, extremism, and xenophobic ideologies.

Facebook's role for future peace and unity is basically a tug-of-war between social media users' responsibility as consumers and creators of content against Facebook's social responsibility. Facebook is seemingly powerless to advocate peace and unity if the people using the platform nurture hate. Its bottom line is also predicated on its reputation as a steward of private information. However, with able oversight from regulatory bodies, particularly the FTC, the tug-of-war may be swayed to incline toward Facebook's social responsibility to uphold user privacy to the highest standards. With upcoming legislation to somehow level the playing field between law enforcement access to Facebook and other social media sites regarding constitutional protections, a new era may be dawning with Facebook partnering with law enforcement as a watchdog against crime, particularly planned mass violence.

A rich source of mass shooting history is now available for practically anyone to peruse online. This aids the work of law enforcement, especially with AI and other advance law enforcement technologies for proactive action. However, information availability also aids crime. This is the paradox of technology, which law enforcement experts, information technology practitioners, and researchers need to resolve or at least find a way to tip the balance of in favor of law enforcement.

On the whole, social media play the following roles, which influence the actions of mass shooters: enablers of the act from conceptualization and planning to the actual mass shooting; facilitators of their motivations to commit mass shootings; platforms to effectively harness technology for knowledge-building and operational efficiency; and coordinating tools for symphonic terrorism. Government authorities combat mass shootings through a number of actions, primarily actionable intelligence, legislation and policy, training of police and other first responders, mechanical barriers or deterrents, and brainstorming of new techniques and strategies. Facebook can be viewed as a contributing partner to government interventions against mass shootings, and recent developments signal a new era with Facebook playing an important role for peace and unity as a responsible steward of private user information and a watchdog against crime and mass shootings.

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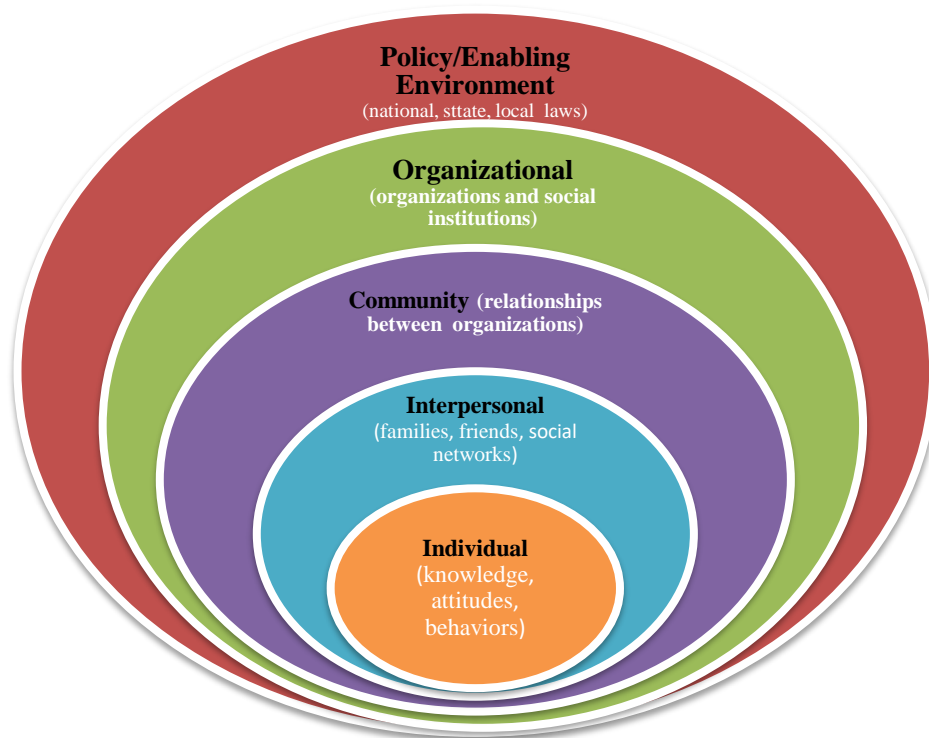
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Appendix A: The Social Ecological Model (SEM)



Appendix B: The Social Ecological Model (SEM) Levels

Level	Account
Individual or Personal	Individual's characteristics that influence changes in behavior, including attitudes, knowledge, developmental history, racial/ethnic/caste identity, age, gender, self-efficacy, sexual orientation, religious identity, financial resources, literacy, stigma, socio-economic status, goals, expectations, values, and others.
Interactive	Formal and informal social support systems and social networks that influence the behavior of individuals, including family, peers, friends, workmates, religious affiliations, traditions or customs.
Communal	Relationships developed among institutions, formal and informational networks and organizations, including built environmental surroundings, businesses, village associations, community leadership, etc.
Organizational or Structural	Social institutions or organizations with rules and regulations for operations affecting how, for instance, social services being provided to individuals or groups; states that offer publicly funded social services.
Policy/Enabling Environment	Local, state, and national policies and regulations, including laws about resource allocation for access to health care services, restrictive policies (e.g., health services' fees and taxes), or inadequate policies requiring immunizations of children.

Appendix C: Percentage Distribution of Nodes

Name (Titles alphabetical)	No. of Docs (7)	% of 7 Docs
Interview Questions		
Q1. Social media link to mass shootings	7	100%
Enablers	7	100%
<i>Bystanders and victims</i>	1	14%
<i>Confidants</i>	2	29%
<i>Political rhetoric</i>	2	29%
<i>Public at large</i>	3	43%
<i>Social media platforms</i>	7	100%
Group - symphonic terrorism	2	29%
Individual or personal	7	100%
<i>Anonymity</i>	2	29%
<i>Bullying - threats</i>	2	29%
<i>Citizen journalist</i>	2	29%
<i>Co-dependent</i>	1	14%
<i>Contagion - copy cat</i>	3	43%
<i>Disgruntled - revenge</i>	1	14%
<i>Hate and xenophobic ideology</i>	2	29%
<i>Illegal activities</i>	1	14%
<i>Justified rage</i>	1	14%
<i>Notoriety - celebrity status</i>	6	86%
<i>Predisposed - mental health</i>	4	57%
Technology	5	71%
<i>Access to information - knowledge</i>	4	57%
<i>Covert</i>	1	14%
<i>Handheld</i>	2	29%
<i>Tactical communication</i>	1	14%
Q2. Government agencies solutions	7	100%
Examples gov action	6	86%
<i>Actionable intelligence</i>	6	86%
<i>Electronic Frontier Foundation</i>	1	14%
<i>FBI Community Guide</i>	1	14%
<i>Legislation</i>	2	29%

<i>Meetings</i>	1	14%
<i>Police training</i>	1	14%
<i>Restrict access SF BART riots</i>	1	14%
Issues	7	100%
<i>Constitutional rights (1st 4th amendments)</i>	7	100%
<i>Incel</i>	1	14%
<i>Law enforcement issues</i>	4	57%
<i>Media incitement</i>	2	29%
<i>Private industry</i>	4	57%
<i>Public communication towers</i>	1	14%
<i>Public safety</i>	2	29%
<i>Social contagion</i>	2	29%
<i>Social responsibility issues</i>	3	43%
<i>Suicides after HS shooting incident</i>	1	14%
Q3. Prevent crime information access	7	100%
Intelligence gathering	5	71%
Issues	7	100%
<i>Censorship - political correctness</i>	2	29%
<i>Compliance with laws</i>	2	29%
<i>Constitutional rights (1st, 4th amendments)</i>	6	86%
<i>Cultural influences</i>	2	29%
<i>Intractable information</i>	1	14%
<i>Media game of divisiveness</i>	4	57%
<i>Mental health</i>	2	29%
<i>Misinformation - fake news</i>	2	29%
<i>Prejudices and bias</i>	1	14%
<i>Tools of crime (guns)</i>	1	14%
<i>Will and opportunity</i>	1	14%
Q4. Facebook role future peace unity	7	100%
Consumer user's responsibility	3	43%
Effect on revenues	2	29%
Expand platform features	1	14%
Fact check	1	14%
Market leader role	2	29%

Messaging - phrasing	1	14%
Not Facebook's role	2	29%
Political blocking censorship	5	71%
Reputation management	1	14%
Social responsibility in vision mission	6	86%
Utilize predictive analytics	1	14%
Specified Incidents	4	57%
Active Killer - knife incident	1	14%
Columbine HS	1	14%
HS, Florida	1	14%
Mosque, Christchurch, NZ	2	29%
Mumbai multiple (Hedley - Lashkar-e-Taiba)	1	14%
Oslo, Utoya Island, Norway (Breivik)	2	29%
Outdoor concert, Las Vegas	1	14%
Roanoke. VA (former employee news station)	1	14%
Sandy Hook Elementary, Newtown, CT (Lanza)	2	29%
Synagogue, Christchurch, NZ	1	14%
VA Tech (Cho)	2	29%